# OFFICIAL REPORTS

ON

# THE PROVINCE OF KUMAON,

WITH A MEDICAL REPORT ON THE

MAHAMURREE IN GURHWAL, IN 1849–50.

EDITED UNDER THE ORDERS

OF THE

# HON'BLE THE LIEUT.-GOVERNOR,

*NORTH WESTERN PROVINCES.*

BY

J. H. BATTEN, ESQ., C. S.

*Commissioner of Kumaon.*

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# PREFACE

TO

# "OFFICIAL REPORTS" ON KUMAON.

THE publication in one volume of the following papers is intended,

*First.* To supply the European Civil Officers of whatever grade who may be appointed to the Kumaon Division with a Manual, containing the peculiar information absolutely necessary to be acquired by persons in their situation.

*Secondly.* To produce a record of the state of local affairs as officially made known at certain dates, and up to a certain period, and thus not only to save the necessity of repetitions in future public correspondence, but also to serve as a measure of comparison, and as a basis for the proposal of administrative reforms.

*Thirdly.* To act as an incentive to similar productions, provoking by example the trustees of official records, to procure the permission of Government for the collection and exhibition of useful documents which would otherwise remain unknown, or would only become known to a few local Officers, as the fruit of inquisitive and laborious research amongst their archives; and

*Fourthly.* To afford to the European public in India, of which important body numerous members are constantly visiting the province of Kumaon, an insight into the character of the country in which they are sojourning, and of the people amongst whom their lot is thrown, in their search for a healthful climate combined with the pleasures of fine natural scenery, and with the opportunities of varied scientific enquiry.

In regard to the last mentioned object of the present collection, it may be observed that the Statistical Sketches by Mr. G. W. Traill, the former Commissioner of Kumaon, have been in constant demand by the residents and visitors at Almorah, and Nainee Tal, and that the one or two copies in possession of private parties of the researches published by the *Bengal Asiatic Society*, wherein the reports of that able Officer appear, have hitherto afforded the only scanty means of gratifying so natural a curiosity. As these sketches were in reality official reports* forwarded to Government, they now form part of the present publication, and are therefore available for general use.

The Table of Contents sufficiently explains the nature of the subjects treated of in the several papers; and in this place it need only be remarked that except in the case of the metallic mines the information now given to the world does not embrace matters of purely scientific interest, the existing reports on such subjects not having been strictly official, and their public treatment by able hands peculiarly competent to do them justice being highly probable† at no great distance of time. The official reports would have been sooner published, if it had been found possible at an earlier date to prepare the new Map which now appears in their company. This work so creditable to its compiler, Captain H. E. L. Thuillier, Deputy Surveyor General, has been executed at Calcutta with considerable difficulty from discordant materials supplied from various sources during the last two years. Among these materials may be mentioned,

I. The printed Sheets Nos. 65 and 66 of the Indian Atlas.

II. The Sheet No. 66, with the boundaries of Kumaon and Gurhwal, and of the respective Pergunnahs of those Districts

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* *Note.*—The Report on Kumaon bears date 16th April 1823. That on the Bhotea Mehals 4th July 1825.

† *Note.*—Vide page 340 of present Collection.

marked off by Mr. J. Strachey, Senior Assistant in Gurhwal, in the possession of the Hon'ble J. Thomason, Lieutenant Governor North Western Provinces.

III. The principal points of Triangulation within the province of Kumaon, as shewn by the records of the Grand Trigonometrical Survey, existing in the Surveyor General's Office.

IV. A Manuscript Map belonging to the Commissioner's Office at Almorah, probably prepared by Mr. G. W. Traill or by Captain Webb Surveyor, and apparently forming the groundwork of the sketch printed in *Rushton's Bengal and Agra Gazetteers*, 1841-42.

V. A Manuscript Map prepared by Mr. J. H. Batten, Senior Assistant in Kumaon and Gurhwal, in elucidation of his Settlement Reports.

VI. A Map of the Bhote Mehals, and of Gujnari and the sacred Lakes in Thibet, prepared by Lieutenant H. Strachey 66th N. I., consequent on the journies commenced by that Officer in 1846.

VII. The same Map improved and amended consequent on the local researches of Lieutenant R. Strachey, Engineers in 1848-49.

As a considerable part of the matter furnished by the two distinguished Officers just named is new and important in a geographical point of view, the delay in preparing the present Map has in reality been valuable, as enabling the compiler to include in his work the latest discoveries.* A comparison of this work with the Sheets 65 and 66 of the Atlas will shew that in other respects also the new Map is superior to its predecessors. Numerous names of unimportant places have been omitted; other names have been corrected; and the insertion of the following was made a point of instruction by the Hon'ble the Lieutenant Governor, viz.

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* *Note.*—For instance the two new Himmalayan Peaks "Kamet" and "Gurla" and the source of the Jhannabi River or furthest Ganges.

1. The mountain ranges.

2. The rivers and their basins.

3. The passes into Thibet on the one side and into the plains on the other.

4. The boundaries of the Pergunnahs.

5. The places of modern resort, such as Nainee Tal, Travellers' Bungalows, or halting places, chief places, Military or Police Stations, Roads and Routes, &c.

6. The great marts for the hill produce in the plains, as well as the chief Cities falling within the compass of the Map, though not in Kumaon.

It now only remains to be added that by some mistake the Editor was deprived of the opportunity of correcting the printed proof sheets of the present work after his revision of the original Manuscript Reports, and that thus some errors have crept into the publication, which it is hoped may be excused.

*January 1st*, 1851.

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# STATISTICAL SKETCH

OF

# KUMAON,

BY

GEORGE WILLIAM TRAILL, ESQ.

*Commissioner for the Affairs of Kumaon.*

[*Reprinted from the Asiatic Researches, Vol. XVI.*]

KUMAON, with the annexed territory of *Gerhwal*, forms almost an equilateral parallelogram facing N.E. and S.W. On the north, where it is separated from Tartary by the Himalaya, the frontier extends from long. 79° 15′, lat. 31° 4′, to long. 80° 45′, lat. 30° 10′, giving a line of about 100 miles: the eastern boundary which is formed by the river *Kali*, or *Sarda*, gives a line of 110 miles, extending from lat. 30° 10′, long. 80° 45′, to lat. 26° 2′, long. 80°. On the west, the province is divided from the Raj of *Gerhwal* by the rivers *Kali* and *Alakanunda*, with a line of frontier of about 110 miles, stretching from lat. 31° 4′, long. 79° 15′, to lat. 29° 55′, long. 78° 10′; and on the south, the province joins on Rohilkund, the line of demarcation being nearly parallel and equal to that on the north.

Within the boundaries above detailed, the horizontal superficial contents of the province may be stated at 10,967 square miles, of which the following is the estimated distribution:

| | | |
|---|---|---|
| Snow,..... | $\frac{4}{15}$ | 2924 square miles. |
| Barren and incapable of cultivation, | $\frac{4}{15}$ | 3655 „ |
| Cultivation, ..... | $\frac{3}{15}$ | 2193 „ |
| Uncultivated,..... | $\frac{3}{15}$ | 2193 „ |

The whole province consists of numerous ranges of mountains, the general run of which are in a parallel direction to the northern and southern line of frontier; they are, however, by no means uniform or parallel to each other in their whole course, while innumerable branches of various height and extent, strike off from each range in every point and direction. The intervals between the bases of the mountains are every where extremely small, and the whole country, when viewed from a commanding position, exhibits the appearance of a wide expanse of unconnected ravines, rather than of a succession of regular ranges of mountains.

The peaks and ridges necessarily vary in height: commencing from the plains of Rohilkund, estimated at 500 feet above the sea, the first range gives an elevation of 4,300, while the second range, called the *Ghagur*, attains the height of 7,700, above the sea. This elevation is no where exceeded throughout the centre of the province, but as the ranges approach the Himalaya, their altitude rapidly increases, till it reaches in the lofty peaks of the latter range, an extreme height of 25,500 feet.

The valleys (if the narrow intervals between the mountains can aspire to that designation,) are lowest on the banks of the largest rivers, and it is in the same situations that the greatest portion of the level land is generally to be met with: these spots, however, in no instance exceed, and in few cases equal, half a mile in breadth: the site of the town of *Srinagar*, on the banks of the *Alakananda*, is of this description, and is only 1,500 feet above the level of the sea.

The *Tarai* or *Bhawer*, included in this province, is very unequal in extent; under the *Gerhwal* pergunnahs it averages only from two to three miles, from the foot of the hills, while in *Kumaon* proper it is no where less than from 12 to 15 miles in breadth. From *Kotedwara*, long. 78° 20′, to near *Bhamouri*, long. 79° 20′, the *Bhawer* is divided from Rohilkund, by a low range of hills, which contains numerous passes, some of them practicable for wheel carriages; the remaining *Bhawer*, to the east and west of these points, is wholly open to the plains. The *Bhawer* is at present only partially cultivated, and consists almost wholly of thick forest, of sal, sisú, and bamboos.

The quantity of land calculated for cultivation as afforded by nature, is, within the hills, extremely small, and in order therefore to remedy this deficiency, the sides of the mountains admiting of such an operation, have been cut down into terraces rising above each other in regular succession, and having their fronts supported by slight abutments of stones. These terraces necessarily vary in breadth and length, according to the form and slope of the mountain on which they are situated; but as a great portion of every mountain, more particularly near the summit and ridges, is not sufficiently productive to warrant the expense and labour of the operation, those spots are clothed with grass, and generally covered with forest, consisting chiefly of pines, oaks, and rhododendrons, whilst some parts, from their rocky and precipitous nature, are wholly barren, or only partially sprinkled with tufts of rank grass.

A few lakes are to be found in various parts, the most remarkable of which are *Nayni Tal, Bhim Tal* and *Now Kuntia Tal,* situated in the *Chakata* district, near the *Bhamouri* pass. The first, which is the largest, measures, one mile in length, and three quarters of a mile in breadth. The water of this and other lakes is perfectly clear, being the produce of internal springs, and the depth in the centre is represented as being exceedingly great. The Himalaya range also presents several lakes, which are fed from the melted snow.

The bases of the mountains are invariably separated from each other by streams of greater or less magnitude, formed principally by the innumerable springs and fountains which pour down on each side. Of these the principal, entitled to the rank of rivers, commencing from the N.W., are the *Kali,* or *Mandakini,* the *Bishenganga,* the *Duli,* the *Nandakini,* and the *Pindar,* all rising in the Himalaya, and forming, after a junction with each other, the united stream of the *Alakananda* or Ganges, which river, in its course throughout the province, from the depth and impetuosity of its current, is no where fordable. To the East, the *Kali,* the *Dhauli,* the *Gauri,* the *Ramganga* and the *Sarju,* having also their origin in their snowy range, form, by their junction, the *Sarda ;* or *Gogra,* and in addition to these, are the *Ramganga,* two *Nyars,* the *Kosilla,* the *Suab,* the *Gourmati,* the *Ladhia,* and the *Ballia;* all of which derive their source from springs in the interior of the province. The small

nullahs are extremely numerous, but do not merit particular detail.

The hill rivers in their descent to the plains, immediately on entering the *Turai*, lose a considerable portion of their body of water, and in numerous instances, totally disappear at that point, during the hot and cold season, when the bed of the river, continues perfectly dry for the space of nine to ten miles, after which it again fills; while at the same distance from the hills, numerous other petty nullahs are formed by the copious springs which gush out of the earth. These phenomena may be accounted for by the nature of the soil at the foot of the hills, which consists of a deep bed of alluvial shingle.

It is by the beds of the rivers that access into this province from the plains on the south, and from the table land of Tartary on the north, is afforded, and the frequented passes into the hills from these points, will always be found to follow, in the first instance, the opening formed by the course of some river, and those ghâts which have no facilities of this nature are invariably difficult, and rarely available for commercial intercourse.

The passes through the Himalaya, are *Mana, Miti, Jowar, Darma,* and *Byani,* which will be hereafter described when treating of Bhote; the principal ghâts of the plains frequented by trade are *Bilasni, Bhorì, Sigdhi, Chokì, Kotedwara, Palpúr, Bablì* and *Kangra,* in *Gerhwal; Dhikúli, Kota, Bhamouri, Timli, Birmdeo,* in *Kumaon.*

Besides these, there are many *Chor* ghâts leading to individual villages, and seldom travelled except by the neighbouring inhabitants.

The roads of communication throughout the province, consist merely of narrow foot paths, which are only partially practicable for laden cattle, while rocky precipices frequently present themselves, which are scarcely passable for cattle in any state. These paths, from the nature of the country, are seldom direct, but wind along the faces of the mountains or pass over them, according as facilities of ascent and descent are afforded. No attempt would appear to have been ever made by former governments to facilitate commercial intercourse by the construction of roads calculated for beasts of burthen; fragments of old roads are to be met with leading to some of the principal

temples, but as they always proceed directly up the steepest acclivities by means of flights of stone steps, they could only have been intended for foot passengers. A road was also made under the Gorka government through the centre of the province from the *Kali*, or *Gogra*, to the *Alakananda*, and passing through *Almora* to *Srinagar*, which formed the continuation of a military road of communication extending from Nipal, and was regularly measured and marked off with coss stones: the construction was left to the zemindars of the nearest villages, and therefore little more was done than repairing the existing path: it is, in consequence, not superior to the common cross-paths of the province. The heaviness of the autumnal rains within the hills, must ever have rendered it difficult to keep any kind of road in tolerable repair, as at that season clefts in the sides of the mountain frequently take place. Military roads of communication have been formed under the British Government, from the plains to the posts of *Almora* and *Petoragerh*, through the ghâts of *Bhamouri* and *Birmdeo*. The latter road passes through the Cantonment of *Lohúghât*, while a further new road connects that post with *Almora*. All these roads are practicable throughtout for beasts of burthen. A commercial road from the plains through the *Dhikúi* pass, has also been commenced.

The rapidity of the mountain rivers offers great impediment to communication and intercourse, more particularly during the rainy season, when (in the absence of bridges,) the traveller, his baggage and cattle can only be crossed over the large rivers by the assistance of the ghât people, who swim supported on *gourds*. The bridges are of four kinds: the first, consists of a single spar thrown across from bank to bank; the second, is formed of successive layers of timbers, the upper gradually projecting beyond the lower from either bank towards each other, in the form of an arch, until the interval in the centre be sufficiently reduced to admit of a single timber being thrown across the upper layers, the ends of the projecting timbers being secured in the stone piers; these bridges, which are called *Sangas*, are usually from two to three timbers wide, and have sometimes a railing on each side. The third description of bridges, called the *Jhúla*, is constructed of ropes; two sets of cables being stretched across the river, and the ends secured in the banks, the road way, consisting of slight ladders of wood two feet in breadth, is suspended parallel to the cables by ropes of about three feet in length. By this arrangement, the horizontal cables form a ba-

lustrade to support the passenger, while reaching from step to step of the ladders. To make the *Jhúla* practicable for goats and sheep, the interstices of the ladders are sometimes closed up with twigs laid close to each other. A construction of this kind necessarily requires a high bank on both sides, and where this evident advantage may be wanting, the deficiency of height is supplied by a wooden gallows, erected on the two banks over which the ends of the cables are passed. The fourth and most simple bridge consists merely of a single cable stretched across the stream, to which is suspended a basket traversing on a wooden ring, the passenger or baggage being placed in this basket, it is drawn across by a man on the opposite side by means of a rope attached to the bottom: this is termed a *Chinka.** The two last descriptions of bridge are constructed at a very trifling expense, as the ropes used are made of a silky species of grass, which is produced in abundance in every part of the province. Iron chain bridges, as described in Turner's Thibet, would appear to have been used in this province at a remote period, but no remains of them now exist. A considerable number of bridges *(Sangas)*, have been erected under the British Government, and many, from the want of durability in the timbers, have had to be renewed after three or four years, so that it will no doubt be eventually found advantageous to resort to the plan of iron chain bridges.

The constant succession of falls and rapids, joined to the rocky nature of their beds, render the hill rivers impracticable for boats at any season, while, during the rains, a further obstacle is presented in the extreme impetuosity of the current. The only boat to be found within the hills is a small canoe, which plies as a ferry during six months of the year at *Srinagar*, on the *Alakananda*.

The buildings of every description throughout the province are constructed of stone laid in clay. The private houses are usually of three or more stories, having slated roofs with gable ends. In towns, the lower story forms the shop, and is left open towards the street, but in the interior this part is appropriated to the cattle. The wood used in buildings, is commonly some description of pine; but, where easily procurable, toon is preferred. The floors are made of clay beat down:

* Meaning, it is supposed, *temporary*, being derived from the Sanskrit term Kshanika.

in some parts of the province, where slates are not at hand, shingles, or planks of pine are substituted for them in roofing.

The temples are nearly all built in the same style of architecture: the principal part, in which the idol is placed, consists of an octagon, from ten to twelve feet in diameter; from the height of eight or nine feet, the sides are made gradually to incline inwards, till they meet; thus forming a cone, the apex of which is surmounted by an ornament in the style of a Turk's cap, and has, sometimes, a slight square projecting roof covered with slates or sheets of copper: in one side of the octagon is the door, and from this generally projects a small vestibule, having a pent roof of slate or copper, with a door of entrance in the gable end.

The *Baulís*, or covered fountains, are not remarkable either for their size or beauty: the bounty of nature, which has furnished innumerable springs on every mountain, renders excavation in search of water unnecessary, and all therefore that is required is a reservoir, enclosed in a small covered building, to secure the water from waste and contamination: such are the *Baulís*, built at the expense of individuals; a few are, however, to be met with, erected by former Rajas, which exhibit some architectural ornaments being surrounded by light verandahs, supported by pillars, and having their interior decorated with sculpture. The construction of a *Baulí*, being considered a meritorious work, numerous buildings of this description are to be found in the neighbourhood of all villages, and along roads of particular resort.

The only buildings which remain to be described are the forts, which, from the state of internal government under the ancient Rajas, were extremely numerous, but the greater number are now mere ruins. They were usually built of large blocks of hewn stones, neatly fitted to each other, with loop holes in the walls for matchlocks, or small *jinjals*, and were always situated on the peak of some mountain, from which circumstance no doubt they derived their name of *Kalanga*. The choice of their position depended on the difficulties of approach, the steepness of the sides of the mountains, and the proximity of water. The mountain, towards the summit, was rendered as perpendicular as possible by scarping, and where the ridge approaching the peak admitted, a trench was dug across, which was passable only by means of a removable bridge. Having thus described the form and nature of the buildings

in this province, the number and extent of its towns will now be noticed.

The slender and diffused nature of the resources, joined to the difficulties of transport in these mountains, by rendering the supply of provisions to a large community precarious, must ever have checked the establishment of town or large villages. It was consequently, at the immediate seat of government alone, that a population to any extent was ever collected, and such was the origin of *Almora, Srinagar, Champáwat,* and *Joshímath,* the only towns in this province. The latter, though never the place of residence of the actual sovereign, yet owed its existence to the presence of the *Ráwal,* and the numerous establishment of the temple of *Badarinath,* and as the *Ráwal,* possessed absolute authority in the districts round *Joshímath,* and had always the disposal of a considerable annual income, he may be considered in the light of a petty prince. With the exception of these four places, there is not a single place that can boast of a permanent bazar, or that contains 120 houses.

*Almora,* situated in lat. 29° 24′, long. 79° 39′, is built on the top of a ridge, running east and west, and elevated 5400 feet above the sea: it was founded about three centuries and a quarter ago, by a Raja of the last dynasty, who, at that period, having extended his dominion over the western districts, removed his court from *Champáwat* to *Almora,* as a centrical point of his kingdom. From the nature of its situation, it is confined to a single street, nearly three quarters of a mile in length, paved with stone, and consisting of two bazars, divided from each other by Fort Almora, and the ancient palace of the Rajas. Detached houses, chiefly inhabited by Brahmins, are scattered along each face of the mountain below the town. At the western extremity, and immediately joining on the town, are the lines of the regular troops, in the rear of which is the fortification now termed Fort Moira: at the eastern extremity is a small martello tower, called St. Mark's. The palace of the Rajas consisted of a confused pile thrown together in an irregular style, and as the whole was in a state of considerable decay, it was in consequence knocked down, and the materials appropriated to the public works: the principal part of the ground on which it stood, is now occupied by the jail. There are several temples in *Almora,* but none requiring any particular mention. By an enumeration in 1821, the number of houses in the town and suburbs was found to be 742, divided among the different classes and castes as follows:

| Hindus, .....228 | Doms, ..... 127 | Mahomedans,.. 75 |
|---|---|---|
| Brahmins,..... 228 | Stone Cutters,.... 51 | Tradesmen, .. 57 |
| Merchants and Bankers, ..... ...184 | Masons and Carpenters, ..... 33 | Not engaged in trade,..... 18 |
| Goldsmiths, ..... 40 | Blacksmiths, .... 27 | |
| Petty Traders, .... 53 | Coppersmiths, .. 8 | |
| Dancing Girls, .... 53 | Curriers,.. ..... 8 | |
| Not engaged in trade, 19 | | |

The number of inhabitants will hereafter be detailed under the head of population.

The Kacheri and other civil buildings are at *Almora*, but the houses of the civilians are at *Hawel Bagh*, which is considered as the civil station, and at which the provincial battalion is cantoned: this place is five miles north of *Almora*. The town of *Almora*, from having become the station for the regular troops and the civil establishments, has, during the last six years, much increased in the number of its inhabitants, and many new houses have been erected during this period. Under the Gorkha government, the town was fast hastening to decay.

*Srinagar*, the ancient capital of *Gerhwal*, is situated in lat. 30° 14′, long. 78° 37′, and is built in a valley on the bank of the *Alakananda*, the principal branch of the Ganges. It owes its origin to an ancestor of the present Raja of *Gerhwal*, who about three centuries past, having established the monarchy of *Gerhwal*, founded the town of *Srinagar*, and established it as the capital.

As the whole trade of *Gerhwal* soon centered there, it would appear at one period to have attained a very flourishing condition, and far exceeded *Almora* in extent and population; but during the last twenty years, this town has suffered most severely from the successive calamities of earthquake, flood, and invasion, and to these must now be added the decrease of trade: by the recent partition of *Gerhwal*, it has lost all share in the trade of that portion of the country made over to the Raja, while the greater part of the traffic from the eastern district, which formerly centered in *Srinagar*, now flows direct through the more convenient passes of *Kumaon*. From these causes, the merchants are daily deserting to *Almora* or *Tiri*, (the capital of the Raja) and the few who remain are

retained there principally by the influx of pilgrims, who annually pass through the town in their route to *Badarinath*. The town contains one bazar, running north and south. In 1821, the number of houses was 562, distributed as follows:

| | | |
|---|---|---|
| Doms,..... 96 | Mahomedans, 28 | Hindus, ..... 438 |
| | | Brahmins, ..... 129 |
| | | Merchants and Goldsmiths,. 84 |
| | | Dancing Girls, ..... 30 |
| | | Gosaeens, ..... 73 |
| | | Petty Traders and not engaged in trade,..... 122 |

The number of Hindu temples is very great: nearly forty receive allowances from the government, but none of these buildings are deserving of description. The palace of the Raja must once have been a handsome structure, and considering the poverty of the country and difficulties of building here, is certainly deserving of admiration. It consisted of an extensive quadrangle, having three grand fronts, each four stories high, with projecting porticoes, the whole of the lower part being profusely ornamented with sculpture neatly executed. The materials consist of large wrought blocks of a close grained black stone, laid in mortar. The greater portion of this building has been thrown down by earthquakes, and the three porticoes abovementioned, are now alone standing. The native establishments for the revenue and police of the western half of the Gerhwal districts are stationed in *Srinagar*, and there are two *Jhúlas* and a canoe for crossing the *Alakananda* established, and in the immediate vicinity of the town.

*Champáwat* in long. 79° 28′, lat. 29° 19′, and elevated five thousand four hundred and seventy feet above the sea, is situated in the district of *Kali Kumaon*, near the extremity of the province: it was originally a village, the residence of the principal zemindar of that quarter, but became, between six and seven centuries past, the capital of a small independent principality, established by the zemindar in question, out of the wrecks of the *Kúttar* monarchy destroyed at that period: it subsequently became the entrépot for the trade of Tartary, passing from the *Dharmaghát* to *Belhary*, in the plains; and to this circumstance must be ascribed

its continued existence as a town, and its retention of a bazar, after it had ceased to be the residence of the court. The present number of houses is sixty-one, of which forty-six are shops: the ancient palace of the Rajas, and the fort in which it stood, are now a heap of ruins. The Kacheri of the *Tehsildar*, for the eastern districts of *Kumaon*, is stationed here, and three miles north of the town, at a place called *Lohúghât*, is a military cantonment, at which is stationed a force for the protection of the frontier. Another post of the same kind is established twenty-two miles north of *Lohúghât*, at *Petoragerh*. Two small fortifications have been recently erected at these posts.

*Joshîmath*, long. 79° 32′, lat. 30° 33′, is situated near the junction of the *Bishenganga* and *Dhauli*, (branches of the Ganges) and is elevated 7,500 feet above the sea. The *Ráwal*, and other attendants of the temple of *Badarinath*, reside here during half the year, when the temple is blocked up with snow. There are 119 houses, distributed as follows:

| | |
|---|---|
| Brahmins, .. .. .. .. .. | 21 |
| Merchants, .. .. .. .. .. | 14 |
| Cultivators, .. .. .. .. .. | 68 |
| Doms, .. .. .. .. .. .. | 16 |

Some trade is carried on from this town with Tartary, through the *Mana* and *Niti* passes.

*Bageswar*, situated at the conflux of the river *Larju* and *Gomati*, long. 79° 35′, lat. 29° 50′, contains a bazar consisting of forty-two shops, which are all the property of the *Almora* merchants, erected solely with a view to the Tartar trade, two considerable fairs taking place here annually: as these houses are only inhabited during two or three months in the year, they must be considered rather as coming under the description of a temporary *Gunj*, than of a town. From the great improvement in the Tartar trade, within the last six years, the number of houses in this place has greatly increased.

Some notice of the size of the villages may now be taken. From the nature of the arable land in this province, as already described, it rarely occurs that such quantity exists in any one spot, as to require the labor of a large resident population: the villages, are consequently, with a few exceptions, universally small, and are, in fact, nothing more than detached hamlets, scattered along the sides and bases of the mountains, wherever facilities for cultivation are afforded.

The total of inhabited villages and hamlets, as will be seen by the accompanying statement *(A)* amounts to 9034, while the whole number of houses contained in them, is only 44,569, giving an average of nearly five houses to each village. The number of hamlets consisting of one house is very great, while only 25 villages are to be found in the province, which exhibit more than 50 houses, and the largest village exhibits 115 houses. On this head, I regret that it is not in my power to offer more certain information than such as is derived from an estimate of the average of inhabitants to each house throughout the province. An attempt was made to ascertain the amount by actual enumeration, and, as far as related to the towns, this measure was executed without difficulty, but in the interior, obstacles occurred which rendered the attempt nugatory. The revenue officers, from the extent of their jurisdictions, and the smallness of their establishments, were necessitated to call in the aid of the *Kamins* and *Seyanas*, and the returns furnished through this assistance, exhibited such extraordinary incongruity, both with respect to the proportion of males and females, and to the average rate of inhabitants to each house in different villages, that no reliance could be placed on them. This inaccuracy must be ascribed, no doubt, to a suspicion on the part of the land-holders, that the information was required solely with a view to some fiscal arrangement, as under the former government, the amount of the cultivating population had formed one of the principal grounds in the adjustment of the village assessment. A recourse to the mode now adopted was, therefore, found to be unavoidable; and it remains to consider the principle on which the estimated average has been founded.

The state of population in the towns does not afford an exact criterion on which to form a judgment of that in the interior, as the inhabitants of the former, from the difficulties of procuring grain, are compelled to maintain a part of their family in villages. To this cause must be ascribed the smallness of the average exhibited in *Almora* and *Srinagar*, the former being five and a half, and the latter not quite four and a quarter to each house, a rate which by no means corresponds with the size of the houses, or can be reconciled to the custom of the country. The erection of a house, from the nature of its materials, requires a very considerable outlay: this consideration tends greatly to check the subdivision and separation of families, and many generations are constantly to be found residing under the same roof. Under these circumstances, the proportion now assumed, of six and a half residents to each house, will not perhaps be thought excessive. Taking, therefore, the number

of houses in *Kumaon*, and the annexed pergunnahs of *Gerhwal*, as exhibited in statement *(A)* at 44,569, the above average will yield a population for the interior, including Bhote, 289,698 souls. To this must be added the inhabitants of the towns, amounting to 7,348, and if a further addition of 4,000 be made for troops, camp followers, and civil establishments, the total of the residents in the province may be estimated at 300,046, giving about 27½ to the square mile. As, however, one third of the province, consisting of $\frac{4}{15}$ snow in the north, and $\frac{1}{15}$ turraee in the south, is almost wholly uninhabited, the proportion in the remaining parts will be about 40½ persons to the square mile.) The proportion of Mahommedans is extremely small, as they are only to be found in the towns of *Almora* and *Srinagar*, and in two or three villages along the ghâts to the plains; the former amount to 491, and the latter 154; to these may be added the troops and camp followers of the same sect, estimated at 100, and the total will then stand at 748.

A detail of the inhabitants of the towns is here subjoined.

| | *Houses.* | *Males.* | *Females.* | *Children.* |
|---|---|---|---|---|
| Almora, ..... | 742 .. | 1369 .. | 1178 .. | 968 |
| Srinagar,..... | 561 .. | 945 .. | 887 .. | 512 |
| Champáwat, ..... | 61 .. | 338 | (details not given.) | |
| Joshímath,..... | 182 .. | 225 .. | 322 .. | 101 |

The great proportion of females to males in the latter town may be ascribed to the number of female slaves, the property of the temple of *Badarinath*.

On the zoology of the province, it is not pretended to offer scientific descriptions, but merely to notice any peculiarities to be found among the animals in these mountains. The animals of the *Bhawer* or *Tarai*, are two well known to require any notice; but it may be stated, that the elephants in that quarter are numerous, and many of the herds are represented by the zemindars as very large. A few of these animals are annually caught by means of *kumki* elephants, at the expense of the Nawab of *Rampur*. The practice of digging pits is forbidden, and as the elephants are now little molested, it is to be hoped that they may at some future period, prove available to the service of the state. The domestic animals are the same as in the plains, but of smaller size: horses and asses must, however, be excepted, for of the former there are only a few ponies, which are imported from Tartary, and of the latter there are none. The hill sheep have invariably

short tails like deer. Further notice will be taken of the cattle, when on the subject of agriculture. The wild animals are tigers, by whom great numbers of people are annually destroyed, leopards, bears, jackals, wild cats, weasels, flying squirrels, moles, porcupines, rats and mice, monkeys, two varieties, the *bunder* and *lanjúr*. The beasts of chase are wild boars, and five species of deer; two, the *jarao* and *sarao*, large; and three, the *thar*, or chamois, the *ghúrer*, and the *khaker*, small; also hares. The animals peculiar to the Himalaya will, hereafter, be noticed in a separate article. Among the birds are, one eagle, vultures, kites, hawks, ravens, crows, daws, jays, wood-peckers and an endless variety of small birds. The game birds are pheasants, five varieties, all differing from the Europe, jungle fowl, partridges, three sorts, quails, woodcocks, peacocks, snipe and wild fowls. The latter, as well as other aquatic birds, are very rare, owing in all probability, to the rapidity of all the mountain rivers. The common barn door fowl is bred by the inhabitants of low castes.

Reptiles are by no means numerous. The snakes are of three or four kinds, but all harmless excepting the *Cobra Capella*: this last is, however, only to be met with in low hot situations, such as *Srinagar*, where fatal accidents occasionally occur from its bite. This remark applies also to scorpions, those on the tops of the mountains being very small, with little or no venom. The remaining reptiles are *gosamps*, armadillos, lizards, asps, frogs, toads, &c.

The rivers and lakes, in these hills, offer very few varieties of fish, not probably exceeding seven or eight, among which are the trout and eel: alligators and turtles are not found higher than the Tarai. Land crabs are common. The rivers, for some distance from the Himalaya, are entirely free from every description of fish, owing, probably, to the coldness of the water from the snows.

The insects are extremely numerous, but offer no new or peculiar varieties; and it will therefore be sufficient to mention the bees, which are of two kinds. The domestic bee varies only in size from that of Europe, being considerably smaller. The hives for their reception, which are to be met with in almost every village, consist merely of a log of wood, hollowed out, and the ends stopped with pieces of boards filled in, and so fastened as to admit of being easily removed. A swarm of bees being procured in the common mode, the hive is then

built into one of the outer walls of the house, and a small hole is made at one end for the egress and ingress of the bees. When the honey is considered as ready, the bees are driven out by a continued knocking on the inner end of the hive, the hole of entrance is then stopped to prevent their immediate return, and the board at the back being removed, the honey is taken out; after which the hive is restored to its original state, and the bees suffered to retake possession. The quantity of wax afforded by these bees is trifling; the honey is, however, remarkably white and fine flavored. The wild bee, which exactly corresponds with the humble bee of Europe, builds its nest on the rocks and in the caves at the base of the snowy mountains: as their honey is not an object, the nests are not taken till voluntarily evacuated, and being thus unmolested the bees continue, year after year, to build at the same spot. The nests in question yield from two to eight seers of wax each. It may be remarked, that locusts rarely visit these hills: some considerable flocks made their appearance in 1820, after an interval of twenty years, but they were almost immediately destroyed by rain.

As the diversity of temperature and climate to be found at the various degrees of elevation on the mountains, tends so greatly to multiply the varieties of vegetable products, some description of the former appears requisite.

The heat is generally moderate, as will be seen from the annexed statement of the average range of the thermometer in the shade, throughout the twelve months.

| | 7 A. M | 2 P. M. | | 7 A. M | 2 P. M. |
|---|---|---|---|---|---|
| January, ..... | 35° | 47° | July,..... | 72° | 78° |
| February,..... | 37° | 55° | August, ..... | 72° | 79° |
| March,..... | 46° | 61° | September, .... | 67° | 75° |
| April, ..... | 54° | 66° | October, ..... | 55° | 69° |
| May, ..... | 57° | 73° | November, .... | 42° | 60° |
| June, ..... | 73° | 76° | December, .... | 34° | 52° |

These observations were taken at *Hawel Bagh*, an elevation of 3,887 feet above the sea. The heat necessarily diminishes, as the height increases. At *Almora*, which is, as already stated, 5,400 feet above that level, the difference is between two and three degrees less than the above average, and so on in proportion. During the cold season, on the contrary, from the greater evaporation, the thermometer, before sun-rise, is always lowest in the valleys, and the frost more intense there than on hills of

moderate height, (that is below 7,000 feet,) while at noon the sun is more powerful. The extremes, in twenty-four hours, have been more than once 18°, and 51°, being a difference of 33°, an inequality which proves destructive of horticulture and highly injurious to trees until they have attained a certain age, after which they are no longer affected by such changes. Snow by no means falls equally every season; the natives fix every third year as likely to be snowy. No year, however, passes without its partial occurrence. The snow never lies but on the mountain tops and ridges, and from thence it soon disappears, unless sheltered from the sun by forests: where the latter are thick, it remains many months. It may, in most years, be found on the summit of the *Ghagur* range, between *Almora* and the plains, so late as the middle of May.

No month in the year is without rain: the periodical season for its fall is from the middle of September, and there usually occur five or six days of continued rain in the end of February, or beginning of March. During the remainder of the year, it is partial and uncertain. In April and May, the rain is usually attended with violent storms of thunder and of hail. From the result of observations made with a pluviometer at *Hawel Bagh*, it may be assumed that, one year with another, the average quantity of rain in the twelve months, is between forty and fifty inches. Thunder is frequent and always loud; buildings are often struck, and lives occasionally destroyed by lightning.

The soil on the ridges and sides of the mountains is generally poor and stony, while the depth of earth is seldom great, and rock is commonly to be met with at a few feet from the surface: in such situations, therefore, the aid of frequent supplies of manure is required to renew the fertility of the land.

In the valleys, which consist almost wholly of alluvial soil, deposited by the rivers, or washed down from the mountains by the rains, the land is tolerably productive, though not to be compared with that in the Tarai or the plains.

Among the trees, the most numerous are the pines, affording eight varieties, some of them remarkable for their size and qualities. The oak also offers six or seven species, all differing from the Europe oak, with the exception of the ilex, which is similar. To these may be added the rhododendron, two sorts, white and red, horse chesnut, toon, &c., an endless variety, some common to the plains, and others peculiar to the hills. The fruit trees include the apple, pear, apricot, cherry, walnut,

pomegranate, mulberry, peach, mango, guava, orange, lemon two kinds, citron four kinds, plaintain, arbutus, or tree strawberry, raspberry, barberry, grape vine, blackberry, and *giwain*, besides some peculiar to the hills, as the *bhamora*, and the *chúri*, or butter tree, which produces a small edible fruit in the shape of a pear, containing a stone, from the *kernel* of which is formed the butter, while from the saccharine matter contained in the flowers, a species of sugar is also manufactured. To conclude the list of fruits, the strawberry, the water melon and pumpkin, may be added. Among the shrubs it will be only necessary to mention the dog-rose and hawthorn, *sidhbarúa*, from the bark of which paper is manufactured, and the dalchini, (the wild cinnamon). Garden vegetables were confined to onions, turnips, sweet potatoes, egg plants, and cucumbers, all remarkable for their size and flavor; spinach was also much cultivated. Potatoes have now been introduced with partial success, but the greater number of Europe vegetables have been found to thrive extremely well. The flowers are extremely numerous; the most remarkable are lilies, many varieties, flags, pionies, wild tulips, &c., &c.

Hitherto the only minerals discovered, are the coarse metals, namely, copper, iron, and lead. The copper is produced in many parts of the province, though not always in the same species of soil, the matrix in some of the mines being a dark sandy stone, and in others a white soapy rock. The principal mines now worked, are *Gangoli* and *Sira*, in *Kumaon*, *Nagpoor*, and *Dhampur*, in *Gerhwal*. Each mine consists of a horizontal shaft, run into the side of a mountain: these shafts are about 3½ feet high by 2½ feet wide, and have their floors gradually declining towards the mouth, to prevent the water from lying and accumulating. Where a rich vein is discovered, traverses of the same description as the shaft are struck off, and when the ore is exhausted a new mine is commenced near the old one. This measure is adopted also when the old mine, from earthquake, or other cause, becomes blocked up by the falling in of the roof. Some of these shafts are carried for a very considerable distance into the bosom of the mountain. The period of mining is during the cold and hot weather, when the produce is collected at the mouth of the pit, where it is washed by the women and children, a small stream being always conveyed thither for the purpose: the clean ore is then carried to the houses of the miners, where the greater part remains for smelting till the rainy season. Two or three men only are employed in working at the same

time, and these are relieved every hour. The ore is brought out of the mine on buffaloe hides, which are dragged along the ground by boys, with a rope tied to one end, and passed round their bodies. The instruments used are merely hammers, small iron wedges, and crow bars; strips of turpentine fir, are used for light. The copper usually sells on the spot for sixty rupees the maund.

Iron exists in all parts of the province, and as the process of extracting it is extremely simple, a great number of mines are constantly worked. The ore is found near the surface, in extensive strata of rocks, but varying very materially in appearance at different mines. In preparing the iron, the ore is, in the first instance, broken small, and roasted by the miners, until the whole quantity adheres together, forming a single mass: in this state it is delivered by them, for the further process, to the blacksmiths, by whom the roasted ore is once more broken small, and then exposed in crucibles to a strong heat, sufficient to fuse the vitreous matter, which runs off through a hole left for that purpose. The metal remains in the crucible, and is then beaten up into small bars for the market, where it sells at a price fluctuating between 3-8 and 4 Rs. per maund. The common produce at the different mines is from 40 to 50 per cent. So imperfect, however, is the smelting, that from 1¼ to 1½ is, subsequently, lost in working up this iron.

Of lead, a few mines exist in the province, but none of them are worked.

The rocks of the southern and midland parts of the province offer little variety, consisting almost uniformly of coarse mica, containing nodules of quartz, sand-stone, and slate. In the northern districts, the prevailing kinds are granite, quartz in large masses, and white marble. Garnets, of an inferior description, are to be found every where embodied in quartz or mica. Rock chrystal exists in plenty in the *Himalaya*. Organic remains and fossil bones are also found in that part of the country; the former consists of *madrepores* and *salagrams*; the bones would appear to have belonged to some large animals of the ox species, probably the *yak*. Bitumen is found on the summits of many of the high mountains in the province: it exudes from the crevices in the rock, and is of a dark black color, with a strong unpleasant odour. It is used in medicine by the natives, under the name of *salajit*.

A white saponaceous stone, resembling and used for the same purposes as pipe clay, is produced in many places. In *Gerhwal,* various vessels are turned from it, which, when polished have the appearance of marble. They retain liquid, but being extremely brittle, are little used.

If volcanic appearances are ever discovered, it will no doubt be in the *Himalaya* range: a few hot springs are to be met with in the passes through it, the heat of these vary; one at *Badarinath,* where it issues from the ground, shows a heat of 138° Farenheit. The inhabitants residing at the base of the range in question, state that smoke is occasionally seen to rise from the interior. The frequent occurrence of earthquakes renders it possible, that some volcano is situated there, but the inaccessible nature of the interior of the *Himalaya,* must ever render it impossible to ascertain its existence by actual inspection.

With respect to the origin of the inhabitants, recourse can only be had to vague traditions and conjectures. The country, from its situation, must necessarily have been peopled from the *table land of Tartary,* or the plains of *Hindustan.* Judging, however, from the personal appearance of the inhabitants, their religion and language, the latter appears the most probable, as, had the first settlers been *Tartars,* some communication would doubtlessly have been maintained with the mother country, by subsequent migration from thence. The original occupants of the country, wherever they may have come, would appear to have been completely uncivilized, and wholly ignorant of agriculture and of the common arts of life. At a period, comparatively speaking not very remote, the celebrity of the *Himalaya,* in the Hindu Mythology, by inducing a constant resort of pilgrims, led to the gradual colonization of the country, by natives of various parts of *Hindustan,* who introduced their religion and knowledge; and the country having, by these means, been rendered an object of competition, its invasion and conquest soon followed. Such are the current traditions, and their simplicity entitles them to consideration.

Of the aborigines, a small remnant, pertinaciously adhering to the customs of their ancestors, are to be found in the *Rawats* or *Rajis.* They are now reduced to about twenty families, who wander in the rude freedom of savage life, along the line of forests situated under the eastern part of the *Himalaya* in this province. In all probability the out castes or *Doms,* are in part descendants from them;

a conjecture that is founded chiefly on two circumstances, first, the great difference in the personal appearance of the *Doms* from the other inhabitants, many of the former having curly hair, inclining to wool, and being all extremely black, and secondly, the almost universal state of hereditary slavery in which the *Doms* are found here. With the origin of this slavery, even the proprietors are unacquainted, it may however, easily be explained, by supposing a part of the aborigines to have been seized, and reduced to that condition by the first colonists abovementioned.

The sanctity of the *Himalaya* in Hindu Mythology, by no means necessarily implies the pre-existence of the Hindu religion in this province, as the enormous height and grandeur of that range visible from the plains would have been sufficient to recommend it as a scene for the penances of gods and heroes. The worship of *Vishnu* would appear to have been introduced into this province by Missionaries, from the peninsula of India. All the most celebrated shrines and temples dedicated to the incarnations of that deity, owe their undoubted foundation to the former princes of that quarter, and to the present moment these temples, including *Badarinath, Kedarnath, Raghunath,** at *Deoprag, Narsinh,* at *Joshímath,* &c., are exclusively administered to by priests, natives of the peninsula. To the polytheism of the Hindu creed, has been here superadded a variety of local superstitions, and the great bulk of the population are now Hindus in prejudices and customs, rather than in religion. Every remarkable mountain, peak, cave, forest, fountain and rock has its presiding demon or spirit, to which frequent sacrifices are offered, and religious ceremonies continually performed by the surrounding inhabitants at small temples erected on the spot. These temples are extremely numerous throughout the country, and new ones are daily erecting; while the temples dedicated to Hindu deities, in the interior, are, with a few exceptions, deserted and decayed. The ceremonies peculiar to the local deities are uninteresting: on particular festivals, dancing forms a principal part, when the dances are performed by any number of men, who move round in a circle with various contortions, their motions being regulated by the slow measure of song, which is sung by the leader of the party, the rest joining in the chorus.

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* Although it is scarcely possible that the author of this paper should have been misinformed, yet the general impression derivable from original authorities is that some of these are shrines of *Siva*, not of *Vishnu*.—H. H. W.

The former government, together with the principal people of the province and the inhabitants of the towns, professed the pure Hindu Brahminical tenets. Either from the absence of any intimate connection with Mahomedan powers, or from an abhorrence of the excess committed by Mahomedan invaders against the Brahminical worship, in this and other countries, strong prejudices were ever entertained against that sect. The profession of the Mahomedan religion was rather tacitly permitted, than openly tolerated in both *Kumaon* and *Gerhwal*, and no public processions, *Tazias*, &c., were ever suffered to take place either at *Almora* or *Srinagar*, at which places only Mahomedans are to be found in any number.

The institution of caste exists here, among the upper ranks, in its utmost rigour, and any infringement of its ordinances or restrictions is immediately followed by degradation, nor can a restoration to the privileges of caste be obtained, but by undergoing various prescribed penances agreeable to the nature of the offence. In the interior, the inhabitants are comprised under three classes only, Brahmins, Rajpoots, and Doms: in the towns, other castes and branches are to be found. The principal classes of Brahmins are *Joshis*, *Panths*, and *Pandes*, in *Kumaon*, and *Khandúrís* and *Dobhals*, in *Gerhwal*, all of which are extremely scrupulous and prejudiced. Among the lower ranks of Brahmins, great latitude is taken in regard to labor, food, &c., and their claim to the distinction of that caste is, in consequence, little recognized: the mass of the labouring population, from similar causes, have still less pretensions to the designation of Rajpoots, which they assume. The Doms are, of course outcastes, and to them are left the whole of the inferior trades, those of carpenters, masons, blacksmiths, coppersmiths, quarriers, miners, tailors, musicians, &c., and by them also are performed the most menial offices.

The ceremonies and periods at which marriages are concluded, are almost wholly similar to those followed by the Hindus in the plains. A sum of money is, however, invariably paid by the suitor to the nearest relation of the bride, a practice reprobated in the plains. This sum varies from twenty-five to a thousand rupees, according to the rank and property of the parties, and from this amount are defrayed the expenses of the marriage ceremonies, and of the bride's portion. In equal marriages, among the high classes of landholders and merchants, and among the Brahmins, the disbursement generally exceeds the sum received from the bridegroom. In case

of second and subsequent engagements entered into by persons of this description, the new bride is received on terms of inferiority to the first wife, and the *dower*, and other expenses, are less proportionate to the sum paid. The latter observation applies to all contracts of this nature, which take place in the remaining classes of the population, such transactions being, in point of fact and custom, one of regular sale, conveying to the husband and his heirs, the free and disposable property in the person of the wife, a right which, though now not recognized, was, under the former governments, daily put in practice. When the means of the suitor are insufficient to satisfy the demands of the parents, an equivalent is sometimes accepted in the personal services of the former, for a given period of years. The marriage is completed on the signing of the contract, and at its expiration, the contractor is at liberty to carry away his wife.

The custom of many brothers having one wife in common, has long ceased to be practised in any parts of this province, but the widow of an elder brother is commonly re-married to the next brother.

The dead bodies are here burnt, with the usual Hindu ceremonies. Where death may have ensued from any disorder supposed to be contagious, the body is usually buried in the first instance, and after the lapse of two or three months, the remains are dug up and burnt on a pile. *Satis* were numerous under the former government, but have now greatly decreased, and the annual average does not now amount to three. As this practice is now confined wholly to the Rajput families of the highest class (which are by no means numerous) it may be expected to become daily more rare. The other classes have almost invariably proved most ready to listen to the persuasions of the public native officers, and have been satisfied with the salvo offered to their character, by the ostensible intention and preparation without proceeding to the completion of the sacrifice.

There are no public institutions of the nature of schools, and private tuition is almost wholly confined to the upper classes. The teachers are commonly Brahmins, who impart to their scholars the mere knowledge of reading, writing, and accounts. The children of respectable Brahmins are also taught Sanscrit, and are occasionally sent to Benares to complete their studies, where they pass through the usual course of Hindu education, consisting of theology, astronomy, judicial astrology, and sometimes medicine. The Pundits here,

however, by no means appear to excel in any one of these branches, as the most learned usually resort to the courts of the Hindu native princes in the plains. The colloquial language is pure Hindi, derived chiefly from the Sanscrit, without any admixture of Persian. The terminations and punctuations are, however, extremely corrupt, more particularly in the northern pergunnahs. The language used in *Gerhwal* differs very considerably from that of *Kumaon*. The bulk of the population in both parts are, however, acquainted with Hindustani, as spoken in the plains.

In the division of time, the Hindu mode is exclusively followed, and the years in use are also Hindu, being the *Sambat* and *Saka*. The latter is the most generally adopted in written documents: it differs from the *Sambat* by a period of thirty-five years.

The religious establishments are numerous, and the lands assigned for their support amount to about one-fifteenth of the total arable lands of the province. Under the former government, large sums were distributed on particular occasions, and festivals to the temples of the favorite deities, a few of which will be here particularly noticed.

The shrine of *Badarinath*, dedicated to an incarnation of *Vishnu*, and one of the most sacred in the Hindu Mythology, is situated within the *Himalaya*, in the *Mana* pass, immediately below the village of that name. The temple is built on the bank of the *Bishenganga*, immediately over the site of a hot spring, the existence of which no doubt led to the original selection of this remote spot. The present building, a modern erection, is small and neat, the material being a hard white stone, and the roof formed of copper tiles. The constant danger from avalanches, renders a contracted style of building indispensable, and even with these precautions many former temples have been overwhelmed and destroyed. The *Ráwal*, or chief priest, who administers this institution, is invariably a Brahmin from the Carnatic or Malabar coast, no other description of Brahmin being allowed to touch the idol. To prevent any inconvenience or cessation of the religious rights in the event of the sickness or death of the *Ráwal*, a Brahmin of the same caste remains in attendance at *Joshímath*. The *Ráwal* has a regular establishment of vizirs and secretaries, treasurers, &c. to manage the temporal concerns of the institution, and under the former Rajas, this personage exercised supreme and uncontrolled authori-

ty in the villages attached to the temple. The shrine, notwithstanding its extraordinary sanctity is far from rich. The idol is adorned with only one jewel, a diamond of moderate size, in the middle of its forehead, while the whole paraphernalia, including ornaments, dresses, gold and silver utensils, &c., do not exceed 5,000 rupees in value. As some explanation of this comparative poverty, it may be stated, that on the Gorkha invasion of *Gerhwal,* the Raja took jewels and plate to the amount of 50,000 rupees as a loan from the temple. The revenues of the temples are derived from two sources, the offerings of votaries, and the rents of assigned lands; but the difficulties of access by checking the resort of rich pilgrims, renders the first branch less productive than might have been expected. The season of pilgrimage commences at the beginning of May, when the temple is opened, and concludes in November, when it is again closed: in ordinary years, the number of pilgrims varies from seven to ten thousand, of which, however the greater portion are Jogis and Byragis. The offerings in such years, amount to between 4 and 5,000 rupees, but at the *kúm,* and half *kúm,* the numbers and receipts are proportionably greater. In 1820, the pilgrims who reached the temple, amounted to 27,000, while many thousands turned back from the fear of the cholera, which then raged in *Gerhwal,* or fell sacrifices to that distemper on the road. The receipts, at the same time were Rs. 15,750, exclusive of gold and silver ornaments and vessels, to the value of near Rs. 3,000 more. The revenue derived from land by no means corresponds with the number of villages with which the temple is endowed. The institution possesses no less than 226 villages, 170 in *Gerhwal* and 56 in *Kumaon.* Of the former, many are large and populous, and were acquired rather from the poverty than the piety of the former Rajas, having been assigned in satisfaction of considerable loans. The rents are paid partly in produce and partly in money, agreeably to the specification in the original grants. As the proprietors of these villages were almost universally Brahmins, the assessment was fixed in permanency at a very low rate in the deeds in question. The value of the proceeds of every description from these villages, may be estimated at Rs. 2,000; Rs. 1,500 from *Gerhwal,* and Rs. 500 from *Kumaon.* The expenditure is regulated, in some measure, by the receipts, and consists chiefly in the support of the *Ráwal,* and numerous establishment, in the daily distribution of food and alms to pilgrims, and in the regular allowances to Brahmins on various festivals. In ordinary years, the disbursements exceed, by a few hundred rupees, the gross income, as above estimated, at between

Rs. 6 and 7,000, in which case the deficiency, is supplied by loans, which are liquidated by the surplus proceeds of productive years. In the year 1820, the sum of Rs. 7,500 was, in this manner, devoted to clear off former incumbrances. These statements have been formed from the original detailed accounts, which, from the various checks that exist in their formation, must be generally accurate. During the winter months, the temple is blocked up and covered with snow, and the attendants remove to *Pandkesar* and *Joshímath*.

The temple of *Kedarnath*, similarly situated in the *Himalaya*, is also dedicated to an incarnation of *Vishnu*. The present building is larger and handsomer than that at *Badari*, and has only recently been completed at the expense of Kajee Amer Singh and his family. The *Ráwal* here is also invariably a native of the Malabar Coast, of the Lingam* sect. He does not, however, perform the religious ceremonies in person, but resides constantly at *Ukhimath*, and sends his deputy (of the same class) to *Kedarnath*. The season of pilgrimage, and the number of pilgrims, are nearly the same at both temples, a previous visit to *Kedarnath*, being considered a necessary preparation to the pilgrimage to *Badarinath*. A few pilgrims annually devote themselves to destruction there, either by precipitating themselves from the summit of a particular rock, or by penetrating into the *Himalaya*, till overwhelmed in the snow. The receipts and disbursements of this temple may be taken at one-third of those of *Badarinath*. There are also several charitable endowments, for distribution of food to pilgrims proceeding to *Kedarnath* and *Badarinath*, which are supported by lands exclusively assigned for the purpose, the greater part, during the Gorkha government; at each of which the pilgrims receive one day's food either going or returning.

The village of *Púchasao*, in the *Jawar* pass, is in *Sadawart*, for pilgrims proceeding to Lake Manasarovara.

*Kamaleswar* at *Srinagar*, and *Jageswar* near *Almora*, are the only other religious establishments in this province, which deserve consideration from the extent of their endowments.

The remaining temples, holding one or more villages, are extremely numerous. *Raj Rajeswarí* in *Dewalgerh*, *Gerhwal*,

* How is this reconcilable with its being a Vaishnava shrine?—H. H. W.

receives an annual allowance from government, amounting to Rs. 652, and several other temples at *Srinagar* and *Almora* also enjoy each a small money pension.

The junctions of all large streams offer sacred objects for pilgrimage, of these the principal are *Deoprag*, *Rudraprag*, *Karnaprag*, *Nandprag*, and *Bishenprag*; situated at the confluence of the Ganges, with the *Bhagirathi*, *Mandakini*, *Pendur*, *Nandakini*, and *Bishenganga*, respectively.

*Bageswar*, at the junction of the *Gomati*, and *Rameswar*, at the junction of the *Ramganga* with the *Sarju*, respectively, are most celebrated in *Kumaon*, and have each their periodical fairs.

The *Government* consisted of a simple monarchy, but the power of the sovereign was, in point of fact, far from absolute, being ever controuled in a greater or less degree by the will of the aristocracy.

The latter, from the poverty of the country, was confined to a small number, consisting merely of the civil and military officers of the state, and of a few principal landholders. Many of the chief offices of government, comprising Diwans, Defteris, Bhandàris, Vizirs, Foujdars, Negis, and Thokdars, had become hereditary in particular families, a circumstance which rendered the influence of their holders boundless in their several departments. The Raja's authority was still further circumscribed by the corrupted state of feudal tenure which existed here. The country was alloted in separate divisions for the payment of troops, to the commander of which was entrusted the civil administration of the lands assigned. The revenues of some districts were originally reserved for defraying the expenses of the court, but these had been nearly absorbed by grants to the junior members of the royal family, to the civil officers of government, and to the attendants of the court, all of whom, from the highest to the lowest, were supported and remunerated in land. A further alienation of the royal domains had taken place, in the frequent donations to Brahmins and temples by successive Rajas, so that with these numerous deductions, the actual amount of rents which reached the treasury was extremely small.

A portion of the most fertile land in the neighbourhood of the capital was retained for the exclusive supply of grain to the Raja, being cultivated at his own expense, but the principal source of the ordinary revenue of the sovereign, consisted in the

frequent offerings presented by his subjects at the several Hindu festivals, and on occasions of extraordinary disbursement, such as the marriage of the reigning prince, or of his son or daughter, a general impost was levied to defray them, from all the assigned lands of the country. With all these aids, the sovereign was ever poor, and during some of the latest reigns was frequently reduced to absolute indigence and want: a fact confirmed to me by the present Raja of *Gerhwal*. The sovereign had the undoubted prerogative of resuming all grants of land of every description, but as this right could only be enforced by the concurrence of the prevailing party in the state, its exercise afforded him little personal advantage, the resumed lands immediately passing to some one of the party in question as the price of its assistance.

The judicial administration formed one source of the revenue of the state.

In the interior, justice was administered in civil and petty criminal cases by Foujdars, or governors, while cases of magnitude, and those originating in the capital or neighbourhood, were determined in the Raja's court, under the superintendence of the Dewan.

Under the *Gorkha* government, the former duty was entrusted to the commandant of the troops holding the assignment, and the latter was executed by the governor of the province, assisted by those military chiefs, who might be on the spot. As the commanders of the troops were seldom present in their respective assignments, they delegated their powers to deputies, called "Becharis," who either farmed the dues on law proceedings at a specific sum, or remained accountable for the full receipts. The forms of investigation and decision, under both governments, were the same. A simple *vivâ voce* examination of the parties and their witnesses, usually sufficed to elucidate the merits of the case, and where doubts or contradictions occurred, an oath was administered by laying the *Haribans*, (a portion of the *Mahábárat*,) on the head of the deponent. In intricate suits, such as disputes regarding boundaries, or where no ocular testimony could be produced to substantiate the claim or defence, recourse was had to ordeal, the modes of which will be hereafter noticed. The case being adjudicated, a copy of the judgment, under the seal of the officers composing the court, and witnessed by the by-standers, was delivered to the party in whose favor it had been pronounced, and the losing party was, at the same time, sub-

jected to a heavy fine, proportioned to his means, rather than to the value of the cause in action. Private arbitration, or *Punchait*, was frequently resorted to, more particularly for the adjustment of mutual accounts among traders or for the division of family property among heirs. Claims, when nearly balanced, were sometimes decided by lot in the following manner: the names of the parties being written in separate slips of paper, these were rolled up, and laid in front of an idol in a temple, the priest of which was then employed to take up one of the rolled slips, and he whose name appeared, gained the cause.

Criminal offences of magnitude, were tried at the seat of government, and accusations might be proved or rebutted by ordeal. The usual punishments for almost every degree of crime were fines or confiscations, and even murder was rarely visited with death, the convict, if a Rajput, being heavily mulcted, and if a Brahmin, banished. Treason was, however, generally punished capitally.

Grievous offences against the Hindu religion and system, such as the wilful destruction of a cow, or the infringement of the distinction of caste by a Dom, such as knowingly making use of a *hukka*, or any other utensil belonging to a Rajput or Brahmin, were also capital. The mode of inflicting capital punishment was either by hanging or beheading; the Gorkhas introduced impaling, and sometimes put convicts to death with the most cruel tortures. Under the Raja's government, executions were very rare, and confined almost wholly to prisoners of the Dom caste; during the last government, they became far more numerous and indiscriminate. In petty thefts, restitution and fine were commonly the only penalties inflicted; in those of magnitude, the offender was sometimes subjected to the loss of a hand or of his nose. Crimes of the latter description have ever, in these hills, been extremely rare, and did not call for any severe enactments. Acts of omission or commission, involving temporary deprivation of caste, as also cases of criminal intercourse between parties connected within the degrees of affinity, prescribed by the Hindu law, offered legitimate objects of fine. Adultery, among the lower classes, was punished in the same manner. Where, however, the husband was of rank or caste, the adulterer was commonly put to death, and the adulteress deprived of her nose. The revenge of the injury was, on these occasions, left to the husband, who, by the customs of the country, and by the existing principles of honor, was authorized and required to wash off the stain on his

name by the blood of the offending parties, and no lapse of time, from the commission or discovery of the crime, proved a bar to the exaction of this revenge. Convicts were occasionally condemned to labor on the private lands of the Raja, to whom they, from that period, became hereditary slaves. Criminals also settling at a royal village in the *Tarai*, called *Gergaon*, received a free pardon, whatever might have been their offence. In cases of self-destruction, the nearest relations of the suicide were invariably subjected to a heavy fine.

The most oppressive branch, of the police, and that which proved the most fruitful source of judicial revenue, consisted in the prohibitions issued under the late government against numerous acts, the greater part of which were, in themselves, perfectly unobjectionable. The infringement of these orders were invariably visited with fines: indeed, they would appear to have been chiefly issued with such view, as among the many ordinances of this kind, it may be sufficient to specify one which in *Gerhwal* forbade any woman from ascending on the top of a house. This prohibition, though apparently ridiculous, was, in fact, a very serious grievance: a part of the domestic economy hitherto left to the woman such as drying grain, clothes, &c., is performed there, and firewood and provision for immediate consumption are stored in the same place, and the necessity for men superintending these operations, by withdrawing them from their labor in the fields, was felt as a hardship.

Three forms of *ordeal* were in common use: 1st, the "*Gola Dip*," which consists in receiving in the palms of the hands, and carrying to a certain distance, a red hot bar of iron. 2nd, the "*Karai Dip*," in which the hand is plunged into a vessel of boiling oil, in which cases the test of truth is the absence of marks of burning on the hand. 3rd, "*Tarazu ka Dip*," in this the person undergoing the ordeal was weighed, at night, against stones, which were then carefully deposited under lock and key, and the seal of the superintending officer; on the following morning, after a variety of ceremonies, the appellant was again weighed, and the substantiation of his cause depended on his proving heavier than on the preceding evening.

The "*Tir ka Dip*," in which the person remained with his head submerged in water, while another ran the distance of a bow shot and back, was sometimes resorted to. The *Gorkha* governors introduced another mode of trial by water, in which two boys, both unable to swim, were thrown into a pond

of water, and the longest liver gained the cause. Formerly, poison was, in very particular causes, resorted to as the criterion of innocence : a given dose of a particular root was administered, and the party, if he survived, was absolved. A further mode of appeal to the interposition of the deity was by placing the sum of money, or a bit of earth from the land in dispute, in a temple before the idol, either one of the parties volunteering such test, then with imprecations on himself if false, took up the article in question. Supposing no death to occur within six months in his immediate family, he gained his cause ; on the contrary, he was cast in the event of being visited with any great calamity, or if afflicted with severe sickness during that period.

The collection of rents from the assigned lands was, as already stated, left to the commanders, and as these, from their military duties, could seldom be present for any length of time in their respective assignments, they were under the necessity of employing deputies, and as the most simple and economical plan, entrusted the details of assessment and collection to some one of their principal landholders, whom they made responsible for the amount of the rents. Hence the original of *Kamíns* in *Kumaon*, and *Síanas* in *Gerhwal*. The latter, again, appointed one of the proprietors of each village, under the designation of *Padhan*, to levy and account directly to them for its cess. These officers were both removeable, the first at the pleasure of the assignee, the second at the will of the *Kamín* and *Síana*. The influence once obtained in the situation, generally led to its continuance in the same family, even when the individual holder was changed, and in some instances, the *Kamíns* themselves eventually succeeded in obtaining a grant of the feud under the usual conditions, which arrangement led to the nomination of *Under Kamíns* and *Síanas*, who are to be found in some pergunnahs. The remuneration of the *Kamíns* and *Síanas*, consisted in a trifling *Nazerána* from each village, and in offerings from the *Padháns* on certain festivals, and on occasion of births and marriages in their own families. They were also entitled to a leg of every goat killed by the *Padháns* in their division, and enjoyed a portion of land, rent-free, in their own village. The dues of *Padháns* were exactly similar, but leviable only from their own tenants.

In the reserved districts, the royal domains were managed by the *Vizirs* and *Bhandáris*, (Treasurers,) and the rents of the alienated villages were collected by the grantees. No establishment of *Kamíns* or *Síanas* existed in these pergunnahs.

A general record of the arable lands of the country, their extent, appropriation, &c., was kept in the office of the *Defteris*. To render these accounts more complete, these officers had deputies in each district, whose duties corresponded, in a great measure, with those of the pergunnah *Kanungos* in the plains. To defray the expenses of this establishment, the *Defteris* were entitled to a percentage of half an anna in the rupee on the rent of every village; and for their own support, they received grants of lands in common with the other public servants.

The full property in the soil has here invariably formed an undisputed part of the royal prerogative, and on this right was founded the claim of the sovereign, either in person or through his assignees, to a large fixed portion of the produce, both of agriculture and mines. The power in the crown, of disposing of such property at its will, has never been questioned, but has been constantly enforced, without consideration to any length of occupancy or other claims in individual holders. The peculiar nature of the country rendered the exercise of this right frequent in the neighbourhood of the capital. The difficulties of procuring supplies in this province, have been already alluded to: individuals settling at *Almora* or *Srinagar*, under the auspices of the reigning prince, in consequence, received the gift of a small portion of land for the establishment of their families. The merchants and principal artisans falling under the above description, as being commonly emigrants from the plains, were particularly favored in this respect, and many of the attendants of the court, who were of the same origin, required and received the same assistance. The commandants and officers of the regular troops stationed at the frontiers, or in forts, enjoyed similar grants of land in the vicinity of their posts. The tenure on which grants of this kind were made, is called *Thát*, which conveyed, in the first instance, a literal freehold, as it vested the grantee with an hereditary property in the soil as well as in the produce. The rents of these lands have, at subsequent periods, been almost wholly resumed to the rent roll, but the property in the soil has been generally suffered to remain with the heirs of the grantee. The term that is used here, is synonimous with zemindaree in the plains, and it is on grants of this nature, that the rights of a large body of the occupant landholders are founded. The land in the interior, seldom changed proprietors: the greater part of the present occupants there, derive their claims to the soil, solely from the prescription of long established and undisturbed possession; and this remark applies also to many individuals, more particu-

larly Brahmins, whose ancestors having, originally, obtained estates on grants, not conveying any property in the soil, their descendants have, subsequently, by the migration of the actual occupants, come into the full possession both of land and produce.

In assignments of the revenue of villages to individual servants of government, both public and private, the deed specified the class and description of service in consideration of which the grant was made, as *Kaminchari, Negichari,* &c., and in these cases, also, the actual occupancy in the land, frequently became vested in the descendants of the assignee, by the mode noticed in the preceding paragraph. Grants to individuals not holding any particular employment, were in *Rhangi,* or when Brahmins, in *Vrata;* to the latter also, and to religious establishments, grants and perpetuity was made with various ceremonies, under the terms of *sankalp* and *bishenpirt.* Under the Nipal government, the terms of *Mana, Chaul,* and *Gunt,* were introduced, the former meaning, literally, "a seer of rice," was used in grants, for services to individuals, and under the latter tenure were included all lands and endowments belonging to religious establishments.

The modes of private transfer are, first, by absolute sale, called *Dhali Boli,* in which the purchaser becomes vested with the same rights, and under the same obligations, as the vender. In the second mode, termed *Mat,* the purchaser receives the land rent-free, the vender making himself responsible for the annual amount of its assessment during his life, and on his death, the purchaser becomes answerable for the demand. There was another species of *Mat,* in which the sale was not absolute, right of redemption being reserved to the mortgager and his heirs, on payment of the amount advanced, but till this took place, the latter continued to pay the revenue. When no heir of the mortgager remained forthcoming, as in the former case, the rent fell on the mortgagee. The fourth form was that of simple mortgage or *Bhandak,* in which right of redemption was sometimes, expressly barred, after the expiration of a given term of years; most commonly it was reserved indefinitely. The landed proprietors, however, ever evince the most tenacious attachment to their estates, whatever be their extent, and never voluntarily alienate them, except under circumstances of extreme necessity. This, joined to the repeated family partitions arising under the Hindu law of inheritance, has reduced landed property throughout the country to the most minute state of sub-division.

The intersection of the country in every point by rivers, would have afforded prominent boundaries for local division, had the state of Government been originally such as to admit of the establishment or continuance of a regular arrangement of that nature, but the existence of numerous petty principalities, the chiefs of which were engaged in constant aggressions on each other, necessarily led to frequent changes in the division of the country, as the conquered villages, in receiving a new master, were incorporated in his own district, or formed into a separate pergunnah, under some new name. The ultimate union of the country under one monarch, produced no remedy, as the distribution which took place among the feudal tenants of the crown, led only to a multiplication of sub-divisions, without producing order in their demarcation. Every new grant to these military chiefs tended to further perplexities, as from that moment, the villages in the grant, whatever might be their actual situation, became an integral part of the district in which the previous assessment of the grantee lay. Various services of the state, which were provided for by allotments of country, gave their names to such districts. Thus, two lots of villages dispersed over the whole province appropriated to the gunpowder manufactory and magazine, formed the pergunnahs of *Silkana*, and *Mahrúri*; while a line of villages, extending from the snowy mountains to *Almora*, was known as a separate division, under the designation of *Hiún Pal*, being appointed for the supply of snow to the Rajah's court. These incongruities ceased in a great measure under the Gorkha administration, when the country was regularly assessed and settled, though in many of the sub-divisions, the former arbitrary mode was continued, the villages of a pergunnah being frequently classed into *Pattís*, according to the caste of the owners, without reference to actual situation. It may be here noticed, that the word pergunnah was not in use here, the terms being *Gerkha*, *Pal*, *Row*, *Pattí*, *Kote*, *Al*, &c.

The mode of calculation in use throughout the hills is, by the estimated quantity of grain which the land will require to sow it. The adoption of so uncertain a standard is doubtless to be ascribed to the nature of the arable lands, the actual measurement of which would have required greater perseverance and science than the natives of this province ever possessed. The denominations by which land is computed in *Kumaon* are extremely numerous, and vary in different parts, and it may therefore be presumed, that they were established at a remote period, when the country was divided into several

petty independent principalities. In calculating the extent of villages, only such lands as had been rendered capable of cultivation by the operation already described, were taken into consideration. These have been gradually augmenting, and as no revised survey has recently been made, the existing records by no means correspond with the actual quantity of arable land in each village.

The most common denomination is the *bísí*, which has now been adopted as a general standard. The regular *bísí* ought, as its name implies, to contain land requiring twenty *nalís* of seed; its actual extent, therefore, varies according to the quality of soil, as the grain is sown much wider in poor lands near the summit, than in rich lands at the base of the mountains. With every allowance of this kind, villages are invariably found far to exceed their nominal *rukba*, when computed by this standard. It also varies in the same district, a portion of the land being calculated by one description and the remainder by another description of *bísí*, which incongruity arose from the practice of former Rajas, of doubling or otherwise augmenting the nominal *rukba* of rent-free land in the deed of grant. Such increased *rukba* became, from that time, permanently enrolled and fixed in the record. A further mode of calculation is, by the estimated produce of land in *bilkas*, or sheaves, the number of which ought to correspond with the number of *nalís* in each *bísí*.

It will now be sufficient to detail the different denominations in use in *Kumaon*, with their computed contents, without entering into further explanation.

| | | | | | | |
|---|---|---|---|---|---|---|
| Jhúla, various | = | 12 | 9 | 6 and | 3 | bísís. |
| Bhara, ..... | = | | | | 2½ | bísís. |
| Alí, ..... | = | | | | 2½ | bísís. |
| Bísa, ..... | = | | | | 4 | bísís. |
| Ans, ..... | = | | | | 1 | bísí. |
| Nalí, ..... | = | | | | ½ | bísí. |
| Taka, ..... | = | | | | ½ | bísí. |
| Masa, ..... | = | | | | ¾ | bísí. |
| Ríni, ..... | = | | | | 1 | bísí. |

In the *Bháwer*, actual measurement is used, and the calculation is made either in *bigahs* or *Hothas*. The former corresponds to the *bigah* of the plains, the latter contains 1600 square paces.

Another mode of computation is by the *plough of two yoke of bullocks*, twenty being required for one *bísí*: a plough of land contains the quantity which can be turned in one day.

In *Gerhwal*, the only denomination in use is the jhúla, which is divided into *chukris* or 4ths, and *anas*, or 16ths: it varied in its extent, according to the description of person holding the land, as will be seen in the following detail:—

| | | |
|---|---|---|
| Jhúla Thakuralí, (chiefs,) | = 16 | Dhons. |
| Ditto Thaní, (principal landholders,) | = 12 | ditto. |
| Ditto Rowlía, (padhan mokuddem,) | = 8 | ditto. |
| Ditto Chakar, (tenantry,) | = 4 | ditto. |
| Ditto Tyargaín, (temporary cultivators,) | = 16 | ditto. |
| Ditto Umraí, (courtiers,) | = 8 | ditto. |
| Ditto Kotkarkí, (militia,) | = 12 | ditto. |
| Ditto Tob, (regular troops,) | = 10 | ditto. |
| Ditto Kotya, (followers,) | = 6 | ditto. |
| Ditto Topchí, (huntsmen,) | = 4 | ditto. |
| Ditto Seuk, (personal servants,) | = 4 | ditto. |
| Ditto Jaghirdar, (rent-free to private individuals,) | = 12 | ditto. |

The implements of husbandry are similar to those in use in the plains, and the different operations of ploughing, harrowing, sowing, weeding, reaping, &c. are carried on in the same way. The land being first manured, is usually ploughed three times, or oftener, and harrowed previously to being sown: the drill plough is not used. In coarse grains, the harrowing is generally repeated when the plants have sprouted two or three inches above the ground. In the finer grains, at the same period, additional manure is commonly scattered over the fields, which are then weeded with spuds. During the *rebbí* crop, the fields, where irrigation is practicable, are usually watered every third or fourth day. A regular routine of crops is pursued; following the native arrangement. In the first, or *kharíf* crop, rice is sown in April, and reaped in September, the land being immediately re-prepared, receives a crop of wheat, which ripens in April or early in May; to this succeeds a crop of *mandúa*, and as the last is not fit for the reap-hook before the end of November, too late for sowing wheat, the land is then suffered to remain fallow till the following spring when it is again prepared for rice. Different kinds of pulse and vetch are occasionally substituted for one or other of these grains. Where land, which has been fallow, is newly broken up, a crop of *mandúa*, or other coarse grain is first

taken. Transplantation is adapted in regard to rice wherever the land can be easily flooded; in other parts the rice is sown as other grains. Irrigation is performed by means of aqueducts or small streams, which are either branches of large streams, or are formed of a collection of many small springs. These aqueducts are frequently carried to a very considerable distance, and at much expense along the sides of the mountains. In places where precipitous rocks occur, troughs of wood are made use of, and where the soil is too loose, walls of stone, having a channel at the top, made water-tight with clay, are built. The manure used, is commonly the dung and refuse of the cattle shed, which is collected in a regular dung-hill with that view. Where the quantity of this may be insufficient, leaves collected from the jungles, are placed in heaps to rot in the fields. As a further substitute, bushes and branches of trees are laid on the land, and when sufficiently dry to burn, are reduced to ashes.

There is a species of periodical cultivation, which deserves notice: this consists in cutting down the forest, and clearing patches of land along the summits of the ridges: the trees are left for a few months to dry, and being chiefly pine, are then easily consumed, and the ashes used for manure; as the declivity of these spots is usually too great to admit the use of the plough, the land is prepared with a hoe.

Only one, or at most two crops are taken from each spot, after which it is abandoned for another, and not again touched till after the lapse of from six to twelve years, according to the nature of the soil, such land is termed *Kála Banjar*. The cultivators, who descend during the winter to the *Tarai*, take land in farm from the zemindars there also, and have thus two crops on the ground in different parts at the same moment. This they are enabled to effect by the difference in the period of harvest in the plains and hills: the *rebbí* crop in the former being sown later, and ripe earlier than in the latter.

The following is a statement exhibiting the various products, together with the average rate of their return, as collected from reports of every pergunnah in the province.

The three kinds of land are, 1st, the *Sera* or valley, fully capable of irrigation; 2d, not irrigatable, but in low situations; 3rd, near tops of mountains. The average price of each kind of grain, during the last six years, at *Almora* is also added.

In the interior, particularly of *Gerhwal*, where the demand is small, the prices are infinitely lower.

*KHARIF, OR FIRST CROP.*

| *Grains.* | *Best Land.* | *Middling.* | *Worst.* | | *Remarks.* |
|---|---|---|---|---|---|
| Rice, seers per rupee, | 32 | 20 | 11 | 28 | |
| Mandúa, | 50 | 40 | 35 | 40 | |
| Jangora, or Manorá, | 50 | 38 | 30 | 42 | |
| Kowni | 48 | 36 | 24 | 40 | |
| China, | 60 | 42 | 35 | 40 | |
| Chúa, or Marsa | 100 | 85 | 72 | 40 | |
| Kodú, | 16 | 12 | 10 | 30 | Partially cultivated. |
| Ugal, | 0 | 25 | 15 | 16 | Ditto ditto. |
| Bajra, | 0 | 25 | 17 | 26 | Ditto ditto. |
| Juwar, | 0 | 25 | 17 | 36 | Ditto ditto. |
| Makae, or Boota, | 36 | 24 | 10 | 24 | Ditto ditto. |
| Ganra, | 80 | 60 | 0 | 30 | Cultivated only in Bhá-wer at both seasons. |
| **PULSE.** | | | | | |
| Urd. | 16 | 11 | 7 | 18 | |
| Bhát, | 16 | 12 | 8 | 24 | |
| Gahat, | 0 | 0 | 15 | 24 | Partially cultivated. |
| Ryas, | 18 | 14 | 11 | 22 | Ditto ditto. |
| Torí or Arher, | 8 | 7 | 3 | 20 | Ditto ditto. |
| Múng, | 10 | 8 | 6 | 16 | |
| Goranse, | 16 | 16 | 9 | 22 | Ditto ditto. |
| Titíria, | 16 | 12 | 8 | 30 | Ditto ditto. |
| **OIL SEEDS.** | | | | | |
| Serson, | 40 | 30 | 15 | 20 | At both crops. |
| Til, | 48 | 36 | 22 | 12 | Partially cultivated. |
| Bhinjira, | 16 | 12 | 10 | 10 | Ditto ditto. |
| *REBBI, OR SECOND CROP.* | | | | | |
| Wheat, | 18 | 9 | 9 | 22 | |
| Barley, | 24 | 17 | 13 | 28 | |
| Ganra, | 80 | 60 | 0 | 30 | Only in Bháwer. |
| **PULSE.** | | | | | |
| Masúr, | 25 | 20 | 15 | 20 | |
| Chena, | 14 | 9 | 7 | 17 | Partially cultivated. |
| Kalau Mutter, | 16 | 10 | 8 | 18 | |
| **OIL SEEDS.** | | | | | |
| Atsí, | 16 | 14 | 12 | 16 | |
| Serson, | 40 | 30 | 15 | 32 | Cultivated chiefly in Bháwer. |

*Cotton* is not much grown in the hills: the produce is, however, of excellent quality, and by native judges is said to be superior to that of the plains, in softness of texture, gloss of color, and length of fibre.

*Hemp*: the growth of this article was at one time considerable, as the Company procured an annual investment of it from this province: these purchases have now ceased; the demand for it for the manufacture of cloth, of which much is consumed in the province, still encourages the cultivation. The quality of the hill hemp has been always much praised: the plant attains the height of from 12 to 14 feet, and the fibre is extremely

strong; other advantages are derived from a crop of hemp, which will be best shown in a statement of the produce; taking a pukha bigah to require 8 seers of seed in wheat, 16 seers of hemp seed would be necessary to sow the same extent, the produce of which would be in the first place, 4 seers of *chiras*, the inspissated juice of the leaf, value 8 rupees; 4 maunds of hemp, value 8 rupees, and 48 seers of seed capable of yielding 6 seers of oil, value 1-8, giving a total money return of 178 rupees the bigah. The cultivation of hemp is confined almost entirely to *Gerhwal*, and is only to be occasionally met with in *Kumaon* proper.

*Sugar-cane* is raised in some parts of the province where the land is particularly good, but the total quantity of sugar manufactured in the province is very trifling.

*Ginger, Turmeric, Cheraita*, and some other plants and roots used in native medicine are grown chiefly with a view to exportation. Ginger yields 7 fold, about 40 maunds to the bigah, and Turmeric 8 fold, or 45 maunds: the prices on the spot are respectively 2 and 1-12 rupees per maund.

The *Gúnya*, or sweet potatoe, is grown on a very extensive scale in the *Bhábwer*, the net produce is commonly 40 maunds per bigah, and the value 1 rupee per maund. *Tobacco* is raised for private consumption, in small quantities.

The *Kharif* crop is the most extensive, and important as affording the staple articles of food (rice and mandùa) to the population. The *rebbi* crop, owing to the confined means of irrigation, is very uncertain: in the event of a sufficiency of rain not falling during the cold weather, the ears of the wheat do not fill, and occasionally the grain is rotted from the opposite cause. Since 1815, two years of failure have occurred, one from drought, the other from too much rain.

Having completed the detail of agricultural products, the other branches of rural economy may now be noticed.

The cattle in this province, as already stated, are small, and are almost universally black or red. The herds are driven each morning to the ridges of the mountains for pasture: at night they are kept in the ground story of the house, or if numerous, a temporary shed is erected for them near the village. Chaff is never prepared for them, but after the wheat harvest has been cut, they are turned into the fields to eat down the straw, which

is left standing; merely the ears being cut off and carried away; the dry hay of the grain, *urd*, &c. is also given to them in an unchopped state. Coarse grass and branches of trees are also cut for feeding the bullocks employed in ploughing. During the later winter, and the summer months, the pasture, from frost and sun, becomes very scanty: at this period, therefore, the inhabitants of the southern and midland districts of *Kumaon*, send down their cattle to the forests in the *Tarai*, reserving only a few cows for milk, when a great part of the inhabitants accompany them: this migration commences in November, after the sowing of the wheat is completed, and the return is delayed till the end of April, or beginning of May, when the crop is ready for reaping. While in the *Bhâwer*, the inhabitants of two or three neighbouring villages, and sometimes of a whole pergunnah, canton together for mutual protection against dacoits. As this custom has existed from time immemorial, each community has its own particular tract of forest to which it annually returns. Some parts of the *Tarai* affording little or no grass; the zemindars, in such situations, cut boughs of trees for their cattle. The temporary villages called *Got'hs*, which they occupy, are mere sheds, formed of branches of trees, and covered with leaves or grass. The site of them is changed according as the pasture in the immediate neighbourhood is exhausted. During the season that the cattle remain in the forests, a very large quantity of ghee, remarkable for its goodness, is made by the zemindars, and exported to the plains. In the northern pergunnahs, where the forest lands are more extensive, the necessity for sending the cattle to the *Tarai* does not exist, and in the summer months, abundance of fine pasture is produced on the summits of the high mountains after the snows have melted. The practice is very little followed in *Gerhwal*, which may be ascribed to the greater proportion of waste land that is to be found there; the cattle are, however, remarkably poor and bad conditioned, and consequently die off rapidly. Few buffaloes are reared in that part of the country.

Neither bullocks nor buffaloes are here used for commercial transport, but they are employed to carry the baggage of the cultivating classes in their annual migration to the *Bhâwer*.

Cows and bullocks vary in price from 5 to 12 rupees each: the latter when broken for the plough, fetching the highest.

Female buffaloes sell from 15 to 20 rupees.

The number of cattle, agreeably to enumeration in 1822 was as follows: giving a total of 2,41,314 animals.

| | *Cows.* | *Bullocks.* | *Buffaloes.* |
|---|---|---|---|
| Kumaon, .. .. .. .. .. | 58,280 | 36,938 | 42,959 |
| Gerhwal, .. .. .. .. .. | 66,355 | 28,546 | 8,236 |

The goats in this province are, generally speaking, low, and stout made; those bred in the northern pergunnahs attain, however, a very fair size. The rearing of these animals is difficult, as during the rainy months they are liable to many disorders, and are frequently poisoned by eating the rank weeds. As there is considerable demand for goats, both for religious sacrifices and for food, they bear a high price, full grown males and females selling for from 2 to 8 rupees each, and half grown kids in proportion. The goats of the northern pergunnahs, which are used for carriage in the Tartar trade, sell from 4 to 10 rupees each.

The breeding of sheep is confined to the northern pergunnahs: the same causes which check the rearing of goats, prove equally fatal to the sheep, and they are bred only with a view to sale, for carriage to the *Bhoteas*, who willingly pay from 3 to 6 rupees each for them.

The grain is ground by means of water-mills, which are extremely numerous: the declivity of the rivers, which is always considerable, greatly aids the erection of these machines. A small stream being diverted from the main channel, is carried on a level along the bank, until a sufficient height is obtained to admit of a fall of eight or ten feet: the mill is then erected below, and the stream is directed by an inclined wooden trough on an over-shot wheel. The mill stones are commonly from one and a half to two feet in diameter: the grain is placed in a funnel-shaped bag, suspended over a hole in the centre of the upper stone, and drops gradually from it as in an hour-glass. By a simple contrivance the shoot of water can be increased or diminished at pleasure, and the wheel is stopped by removing the wooden trough when the water passes through a channel under the wheel. A mill requires but one person (usually a boy) to attend it, and will grind from three to four maunds in the day. Where the diverted stream is sufficiently large, two or more mills are erected together, and worked by separate branches from it. The charges for grinding are usually two to three seers in the maund, including wastage: this, however is small, as the flour is not cleared from the bran.

The public revenue under the former Rajas, arose from duties on commerce, agriculture, mines and law proceedings. An impost was laid on ghee, payable by the owners of cattle, at a fixed rate for each animal, amounting to four annas on a female buffaloe. The weavers throughout the province, were also subject to a separate tax. The assessment of land was, generally speaking, light, the government demand on agriculture being rated at only one-third of the gross produce in ordinary lands, and at one-half in the very fertile. In mines the royal share amounted to one-half.

The collection was made in two forms, being imposed one year on the land, and a second year levied by a capitation tax on the inhabitants. As these, however, consisted solely of persons connected with agriculture, the source from which the payments were made, was necessarily the same, though the mode and detail of cess varied.

As the records of the above period, yield little or no information of the rents of lands and villages, rent-free to individuals in tenure of service, or assigned to temples, it is impossible to form any correct account of the income derived from the country by the Government or their representatives. Judging, however, from the very superior degree of population and cultivation which then existed, the sovereign's share of the gross produce of the country may be computed at about four lacks *kacha* rupees for *Kumaon*, and two for the district of *Gerhwal*. The extraordinary revenue was levied in the form of a general house-tax, and, of course, varied in its amount according to the nature of the emergency on which it was imposed. To account for the subsequent deterioration in the resources of the country, a short view of the *Gorkhali* revenue administration is necessary.

On the successive conquests of *Kumaon* and *Gerhwal*, by that power, the existing system was continued, and the country including all the villages hitherto reserved for the support of the court and their attendants, was parcelled out in separate assignments to the invading army, and as this was kept up on a large scale, with the view to further conquests, the value of each assignment was estimated at an excessive rate to meet the expenditure. The consequences may be easily surmised: the troops considering themselves merely as temporary holders, and looking forward to a change of assignment on every new acquisition, felt no interest in the condition or welfare of the landholders made over to them. The emigration, in the first instance, of a large por-

tion of the principal zemindars, tended still further to increase the evil. The villages were every where assessed rather on a consideration of the supposed means of the inhabitants, than on any computation of their agricultural produce. Balances soon ensued, to liquidate which, the families and effects of the defaulter were seized and sold; a ready market for the former presenting itself in the neighbouring towns of *Rohilkhund.*

The consequent depopulation was rapid and excessive; as is fully proved in the numerous waste villages deserted at that period, and in the incomplete state of cultivation which prevails generally in the villages still inhabited. After the conquests of the Nipal government had been further extended, and the subjection in this quarter fully established, measures were adopted to remedy these disorders. A commission was accordingly deputed immediately from *Katmandú,* for the purpose of fixing the revenues at an equitable rate. The settlement was formed on actual inspection of the resources of each village, but as the estimated profits of the trade carried on by the residents were taken into consideration, the assessment must be viewed rather as a tax founded on the number of inhabitants, than on the extent of cultivation. On the completion of this survey, a detailed account of each pergunnah, showing the numbers, names, size, and extent of the villages, was submitted for the approbation of the court of Nipal. From thence a copy, under the seal of state, was issued to the *Kamins,* or principal landholders, as a standard of the revenue demandable from their respective *pattis,* corresponding instructions being issued to the officers holding assignments. The form of these accounts, together with the names and nature of the items, of which the revenue was composed, will be seen in statement (B) which gives an abstract of the total revenue as fixed for *Kumaon* and the *Gerhwal* districts by the Commissioners in question. The demand thus authorized, generally speaking, was by no means excessive or unreasonable, but the absence of a controlling power on the spot, rendered the arrangement almost nugatory, and the Military chiefs were enabled to evade it by the power vested in them, of imposing fines, at their own discretion, in the administration of the interior police. In *Gerhwal,* where the conquest had been more recent, these exactions were more heavy: the *jumma* imposed, soon exceeded what the country could yield, the deficiency annually increasing from the attempt to enforce the full demand.

The silver metallic currency in this province consists, principally, of new *Furruckabad* rupees. A few old *Furruckabad* and

*Bareilly* rupees are to be met with in circulation, as also *mahendar mullees*, a *Gorkha* coin, which passes for six annas. The copper coin is pice, 176 of which equal one *Furruckabad* rupee; cowries are not used. In *Gerhwal*, in addition to the above, there is a three anna piece called *timashí*, which is a favorite coin there. Under the former government, a mint for stamping the *timashí*, existed at *Srinagar*: this has now been abolished, and this description of money having, in consequence, become scarce, has been greatly enhanced in its nominal value. Five only, instead of six, as formerly, are now procurable for the new *Furruckabad* rupees, the intrinsic worth is not much above two annas. The current rupee of account, throughout the province, is the same, being equivalent to 12 annas, new *Furruckabad* rupees. Gold coins are merely purchased for their metal, for making ornaments; a Calcutta sicca goldmohur sells, in the market here, for 19 new *Furruckabad* rupees, and other goldmohurs in proportion. The Tartar gold does not fetch more than from 14 to 15 rupees the *tola*. In *Gerhwal*, copper, in weight, would appear to have been once the principal medium of exchange. This circumstance, no doubt, arose from that metal forming the staple commodity of the country. In adherence to old usages, the zemindars of *Gerhwal*, even now, in many of their contracts, stipulate a part of the price in a given weight of copper, but as this is no longer plentiful, the whole amount is paid in silver coin.

Grain, salt, and such articles are sold chiefly by measures of capacity. In *Kumaon*, the measure in use is the *nalí*, equal to about two seers of 83 *Furruckabad* sicca weight; fifteen *nalís* make one *peraí*, and twenty *nalís* make one *ríní*. In *Gerhwal*, the *nalí*, there called *patha*, is subdivided into *manas*. Thus:

4 Manas, = 1 Patha.
16 Pathas, = 1 Dhon.
20 Dhons, = 1 Khari.

In the sale of metals, cotton, &c., the products of the country, the weight is commonly ascertained by the steel-yard. In this instrument the weight is fixed, and the object to be weighed, is moved along the lever, which is divided into *puls* and *pice*.

3 Pice making 1 Pul, and
20 Puls making 1 Dam.

This latter forms the maximum weight of the steel-yard, and is equal to about 100 *Furruckabad* rupees. In measuring cloth,

the cubit is generally adopted. At *Almora* and *Srinagar*, the weights and measures of the plains, on a reduced scale, were also in use. These have now been fixed at a regulated standard, the seer weighing 84 *Furruckabad* milled rupees, and the *guj*, equal to the English yard.

The manufactures in these hills are so trifling, as scarcely to deserve particular mention. The principal are blankets, made in the northern pergunnahs, *pankhís*, a coarse woollen camblet, also made there, and in Bhote, *bangelas*, a hempen cloth, manufactured in the midland parts of *Gerhwal*, where it forms the principal materials for clothes to the inhabitants during the hot season. Wooden vessels of various forms and shapes, are made from several species of wood. Coarse cotton cloth is woven in small quantities. Mats and baskets, of all kinds, are prepared from the small male bamboo, in a very neat style. The artizans universally exhibit great want of neatness and finish in the execution of their work, more particularly the smiths in iron and copper utensils, which are invariably rough and ill-formed. The potters throughout the province, excepting those at *Srinagar*, are unacquainted with the use of the wheel. The turning lathe, the large saw, and the plane, are unknown here: planks are split from the tree by the axe, and then partially smoothed by the adze. It may be mentioned as a curious fact, that the spirit blow-pipe is to be met with in *Gerhwal*, where it is sometimes used by goldsmiths: this instrument is composed of iron, and filled with whiskey distilled from rice, and when used it is placed on a brazier of burning charcoal.

The traffic of the province is divided into two branches: first, the sale of the produce of the hills, and secondly, the carrying trade with Tartary: this latter again passes through two hands, the Bhoteas, who hold direct intercourse with the Tartars, and the hill traders, who furnish returns and receive the Tartar merchandize in barter: the nature of the former of these transactions will be reserved for a separate article. The migratory habits of the zemindars of the southern pergunnahs, have given rise to a very general diffusion of commercial enterprise among them, and every individual possessed of a small capital, either singly or jointly with others, engages in traffic. With an investment composed of iron, copper, ginger, turmeric, and other hill roots and drugs, the adventurer proceeds to the nearest mart in the plains, and there receives in barter for his merchandize, coarse chintz, cotton cloths, *gúr*, *tobacco*, colored glass beads and hardware, which return, after supplying the

wants of himself and friends, is disposed of at the villages in the midland and northern pergunnahs, or is reserved for sale till a fair occurs in the neighbourhood. Those, again, whose credit or resources are more considerable, enter eagerly into the Tartar trade. The imports from the plains are, in this case, the same as above enumerated, as fine manufactures or expensive articles are only brought up when previously bespoke; from the Bhoteas they receive in exchange, partly cash and partly Tartar and Bhote productions. The latter comprise hawks, musk, pankhís, (coarse camlets) wax, masi, (frankincense) *kutkí*, and a variety of other roots and drugs. The Tartar products consist of borax, salt, gold-dust, and *chawr* tails. The zeal and industry evinced by this class of traders, in the execution of commissions, is very great, as they frequently proceed in person as far as *Furruckabad* and *Lucknow*, in search of the articles required from them.

The commerce carried on by merchants is of the same nature as that last described, the only additional merchandize, not included in the above detail supplied or received by them, in barter with the Bhoteas, consists of

| *Deliveries.* | *Receipts.* |
|---|---|
| Fine sugar candy, | Shawl wool, |
| Spices of all kinds, | Coarse shawls, |
| Europe broad cloth, | Ditto China silks, |
| Corals. | Saffron, |
| | Bulgar hides, |
| | Ponies. |

An enumeration of the exports and imports, from this province to the plains, is given in the Appendix. As the value of the former by no means equals that of the latter, the deficiency is made up in specie. No transit duties being collected, it is impossible to form any correct estimate of the total value of the imports and exports: between four and five lakhs for the first, and from three lakhs to three lakhs and a quarter for the other, is probably within the actual amount.

There can be no doubt that every branch of commerce in this province, more particularly that with Tartary, has experienced very great improvement during the last six years, and has probably been augmented in the proportion of full two-fifths. The only check to trade which now exists, arises from the expense and difficulties of carriage. At present, every kind of merchandize is transported on coolies, who carry from thirty seers to one maund *pukha*. The hire from *Almora* to *Kasípur*,

the nearest mart in the plains, is two rupees and eight annas to each man, and the *Almora* merchant, accordingly, adds twenty five per cent on the *Kasípur* invoice price, to cover this and other incidental charges, and to allow him a profit. Proceeding further in the interior the prices gradually rise; and at the foot of the *Himalaya,* may be stated at from fifty to seventy-five per cent above the cost in the plains. With the formation of public roads, practicable for beasts of burthen, these obstacles will gradually cease.

It now only remains to mention the marts of principal resort for the hill trade. To the east, the *Mandí* of *Belhari* is frequented by the merchants of *Champáwat,* and the traders of the eastern district; whilst the commerce of *Almora* and of the remainder of *Kumaon* (proper) is carried on with *Kasípur* and the *Chilkía Mandi;* to these also now flows that of the eastern pergunnahs of *Gerhwal. Afzelgerh* is the market for the midland, and *Najíbabad* for the western parts of *Gerhwal* and for *Srinagar.* Since the establishment of the British Government, the petty traders by no means confine their transactions to these marts, but visit also most of the principal towns of *Rohilkhund* for the purposes of traffic. The merchants of *Almora* and *Srinagar* have no established correspondents at any town in the plains, with the exception of the marts above enumerated. There are no village marts for the disposal of agricultural and other produce, but the periodical *mélas,* or fairs, at religious places of pilgrimage, to which the traders resort, are frequent in all parts of the country.

The foregoing view comprises only the commerce of the hills; a further branch in this province is that of the timbers, bamboos, terra japonica, &c., the produce of the forests in the *Bháwer.* This trade is engrossed by the inhabitants of the towns and villages of *Rohilkhund,* bordering on the *Tarai,* from whence, as the hill zemindars have no transport, they are obliged to sell the articles on the spot at a low price, very inadequate to the labor expended in cutting and preparing them. The carriage in use, consists of hackeries and large buffaloes; tattoos are also used for the conveyance of light articles. The foregoing remark applies equally to the traffic in *kuth* or terra japonica, though not from the same cause: this article is prepared only by persons of the lowest, or *Dom* caste, who, having no capital of their own, are obliged to work on advances, either at a given rate for the produce, or in the shape of wages. These speculations prove extremely profitable, and the returns are always quick. The *kuth* does not cost the capitalist more

than from five to eight rupees the maund, while in *Rampur* and other large towns of *Rohilkhund*, the price is commonly from ten to fourteen rupees the maund. The trade in timber, &c., proves equally advantageous; a hackery load, the original cost of which may have been two rupees, with an additional expense of eight annas, Government impost, sells for more than double at the nearest mart. The continuance of these high profits is, no doubt, to be attributed to the almost universal dread entertained of the climate of the *Tarai* forests. The people who now carry on the trade, are, with few exceptions, invariably Mahomedans. For the convenience of the purchasers, the hill zemindars have established small *Mandis* or marts, at which the timbers and bamboos are collected, when cut and prepared; they are conveyed thither by manual labor. The forests nearest the plains being now totally exhausted of timber, the traders are obliged to come almost to the foot of the hills, where a supply of the finest timbers, calculated for the consumption of years, presents itself. *Sisú* forms an exception, as large trees of this species are becoming scarce in every part of the *Kumaon* forests. A list of the productions exported from the *Tarai* forests will be found in the Appendix.

A short view of the present judicial and revenue system will now be taken. The first calls for little notice, as the general absence of crimes in this province, renders this branch of administration of minor importance. From the 1st January 1820, to the 31st December 1821, the total of criminals confined in jail amounted to sixty-five for the undermentioned offences.

| | *No. of Prisoners.* | *No. of Crimes.* |
|---|---|---|
| Murder, .. .. .. .. .. .. .. | 4 | 4 |
| Thefts above 50 rupees, .. .. .. .. | 3 | 2 |
| Forgery, .. .. .. .. .. .. .. | 1 | 1 |
| Perjury, .. .. .. .. .. .. .. | 1 | 1 |
| Adultery, .. .. .. .. .. .. .. | 3 | 3 |
| Petty thefts and receiving stolen property, | 29 | 17 |
| Assaults, defamation, and other petty misdemeanors, .. .. .. .. .. | 24 | 15 |
| Total, .. | 65 | 43 |

In addition to the preceding, one murder, and two thefts above 50 rupees were perpetrated, in which the offenders eluded apprehension. Affrays of a serious nature are of very

rare occurrence, and even petty assaults are not frequent. Dacoities sometimes take place in the *Bhâwer* or *Tarai*, perpetrated by robbers from the neighbouring districts of *Rohilkhund*, to which they return immediately after the commission of the crime. The offence of adultery is, from the lax state of morals, extremely common among the lower orders, but it seldom forms a subject of complaint in the court, except when accompanied by the abduction of the adultress. Infanticide was formerly practised among some Rajput families of high caste, attached to the Raja's court at *Srinagar*, but since the emigration of these persons on the *Gorkha* invasion, no case has ever occurred in the province. Suicide is very prevalent among females of the lower classes. The commission of this act is rarely found to have arisen from any immediate cause of quarrel, but is commonly ascribable solely to the disgust of life generally prevalent among these persons. The hardships and neglect to which the females in this province are subjected, will sufficiently account for this distaste of life, as with a trifling exception, the whole labor of the agricultural and domestic economy is left to them, while food and clothing are dealt out to them with a sparing hand. Suicide is never committed by males, except in cases of leprosy, when, as in other parts of India, the leper sometimes buries himself alive. Deaths from wild beasts are very frequent; they probably do not fall short of one hundred annually. Complaints against individuals for sorcery and witchcraft are very common indeed; an infatuated belief in the existence of such power, pervading the whole body of the inhabitants of this province. All cases of unusual or sudden sickness and mortality, are immediately ascribed to witchcraft, and individuals are sometimes murdered, on suspicion of having occasioned such calamities. Applications to the court on the subject of caste are numerous: these are invariably referred to the Pundit of the court, whose decree delivered to the party concerned, is always conclusive. These references are, no doubt, a consequence of the practice established under the former governments, by which the cognizance of cases involving deprivation of caste, was confined to the government court. The public at large still appear to consider such reference as the only effectual means for obtaining restoration and absolution.

The management of the police in the interior, is entrusted to the tehsildars, and the only establishments exclusively devoted to this duty, are the thanas at *Almora*, and at the five principal ghâts, towards the plains, namely, Kotedwara, Dhikúli, Kota, Bhamouri and Timli. The expense of these

establishments amounts to three thousand and sixty-two rupees per mensem; the charges under the same head, on the 1st May 1816, stood at eight hundred and seventy rupees per mensem.

The provincial battalion is also available for police duties, and during the healthy season, from November to April inclusive, a line of guards, extending along the frontier of *Rohilkhund*, are stationed for the protection of the *Tarai* from dacoits. These posts have superseded the chokis formerly occupied by the *Heri* and *Mewati* chokidars, who, under the former governments, engaged, on certain considerations, to repress robberies in the *Tarai*, and made themselves answerable for the restoration of all property which might be stolen within their respective jurisdictions. The remuneration for this service consisted in a fixed tax leviable on all persons, merchandize, or cattle, passing certain limits. On the introduction of the British Government, it was found, that the system itself was far from efficient, and that numerous abuses were daily practised in the collection of the authorized chokidari dues. Thefts of cattle were frequent, and suspicion attached to the chokidars themselves, of being participators, if not principals in their perpetration. The responsibility of the head chokidar proved merely nominal, as restitution of the stolen property was, in most instances, evaded. The system was, on these grounds, totally abolished in the year 1817, and the advantages resulting from this measure have been fully evinced, in the almost total suppression of robberies and other outrages, hitherto so prevalent in that part of the country; the *Tarai* under the *Gerhwal* pergunnahs which is almost wholly in the *Moradabad* jurisdiction, must be excepted in this remark. No class of people answering to the village chokidars in the plains, are to be found in this province.

In Civil judicature, the simple forms of the preceding government have been generally retained. The petition originating the suit, is required to be written on an eight-anna stamp, but no institution or other fees are levied; a notice, in the form of *ítalanáma*, is then issued, which process is served by the plaintiff, and in three cases out of four, produces a compromise between the parties: where ineffectual, it is returned by the plaintiff into court, when the defendant is summoned. The parties then plead their cause in person, and should facts be disputed on either side, evidence is called for. Oaths are never administered, except in particular cases, and at the express desire of either of the parties. Suits, for the division of pro-

perty, or settlement of accounts, are commonly referred to arbitrators selected by the parties. In the issue and execution of decrees, the established forms are followed, but the leniency of the native creditors renders imprisonment and sales in satisfaction of decrees, uncommon: since the introduction of the British Government, only eight debtors have been confined in the *Almora* jail, six at the suit of individuals, and two on public demands in the Commercial and Commissariat departments. At present, only one court (the Commissioner's) exists in the province for the cognizance of Civil claims, and the absence of fees and simplicity of forms, as therein practised, joined to its frequent removal to every part of the country, have hitherto tended to prevent any inconvenience being experienced from the want of Mofussil courts. The gratuitous administration of justice has not been found to excite litigation, as the absence of native pleaders, and the celerity with which causes are decided, operate as checks to such an abuse. The number of Civil suits entertained during the year, from 1st January to the 31st December 1822, amounted to 1,462, of which only four hundred and thirty-eight proceeded to the summons of the defendant: of the latter, one hundred and thirty-one were subsequently withdrawn, by *razeenamahs*, and three hundred and seven finally adjudicated. Disputes regarding land, form the greater portion of suits instituted. The value of those in action rarely exceeds one hundred rupees. The proceedings of the court are written in the Hindi, with the exception of the examinations, which for the sake of expedition, are recorded in the Persian.

The revenue administration is here conducted on the same principles as are in force in the plains. On the conquest of the province, as a temporary arrangement, the revenue of each pergunnah was farmed for one year to the *Kamin* or *Siyana*. The receipts of the preceding year, as exhibited in the *Qanoongoe* returns, were assumed as a standard, a deduction of twenty-five per cent being allowed for the difference of currency. The jumma thus fixed, amounted to 1,23,577 Furruckabad rupees. At the expiration of this settlement the *Padháns* were called upon to engage for the assessment of their respective villages: as this mode of collection was, in some degree, novel, and as the individual responsibility of the *Padháns* remained to be ascertained, the arrangement in question was only partially introduced, and the leases restricted to one year, at a jumma of 1,37,949 rupees. The success with which this experiment was attended, and the punctuality with which the revenue was realized, led to an extension of the system on the third settlement, which was fixed for a period of three years, at a jumma of

1,60,206 rupees. The present settlement was formed on the same principle, and from the reluctance of the *malguzars* to engage for a longer period, was again fixed for a term of three years. The objections preferred against a longer lease were founded on the migratory habits of the lower class of cultivators. The jumma of the 1st year, or 1877, amounted to 1,69,394 rupees, which has been raised in the last year of the term, 1879, by the rents of new villages, to 1,76,664 rupees. This sum is collected from 7883 *malguzars*, and is comprised of the following items :—

| | | | | |
|---|---|---|---|---|
| Cess on | Agriculture, | .. | .. | 1,69,566 |
| Do. | Copper Mines, | .. | .. | 3,360 |
| Do. | Iron Mines, | .. | .. | 1,100 |
| Do. | Pasturage, | .. | .. | 2,638 |

A further branch, at former settlements, consisted of cess on the profits of trade, under which head 7,000 rupees were annually collected from the *Bhoteas*. This source was forgone at the last settlement, and a remission to that amount made to the *Bhoteas*. The revenue derived from timbers, bamboos, kuth, &c., in the *Tarai* forests, may also be included in the land assessment, as although levied in the shape of duties from the exporters, it is in fact, the government share in the value of the national products of those forests, all of which are public property. These duties have been hitherto let to farm on annual leases, at the undermentioned jumma :—

| 1816-17. | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 |
|---|---|---|---|---|---|---|
| 1,721 | 2,841 | 3,200 | 3,987 | 4,850 | 5,503 | 6,302 |

The total improvement which has taken place in these various branches of assessment, since the conquest, falls little short of 60,000 rupees, without taking into account the remission of 7,000 rupees abovementioned.

Notwithstanding the general lightness of the government demand, a very extensive revision of the detailed assessment has been found indispensable at each succeeding settlement. This necessity has arisen from the contracted state of the labouring population, which renders it difficult for any *malguzar* to replace sudden casualties among his tenants. In the present state of minute village assessment, the death or desertion of even a single cultivator, adds greatly to the burthen of

the remaining tenants: where further losses occur, immediate remissions are generally made to save the village from total desertion. Such defalcations are supplied from a corresponding improvement in other estates, and as contingencies of this nature are best known to the surrounding *malguzars* the distribution of the pergunnah assessment has been hitherto entrusted to the *Padháns* themselves. This measure is executed in a general assembly or *Punchait*, of the parties concerned in the scale of the expired jumma; the increase is subsequently laid on in the shape of a *per centage*. The general equity with which these mutual assessments have been conducted is sufficiently evinced in the facility and punctuality with which they have been realized. The village settlements are formed with the established *Padhán* in all cases, except where objected to, on sufficient grounds, by the remaining sharers on the estate. The nature and dues of the above office have already been described: the small parcels of land attached to it, are particularly specified in the lease as *Hek Padhánchari;* the total of such lands in *Kumaon* proper amounts to about 5000 standard *bísís* being recorded at 3970 nominal *bísís*. In *Gerhwal*, no public allowance of this nature exists, but a similar arrangement has always been made by the joint proprietors of the estate in favor of the *Padhán*.

It now only remains to be considered how far the rents paid by the actual cultivators correspond with the public demand. A large portion of the province, not less, probably, than three-fourths of the villages, is wholly cultivated by the actual proprietors of the land, from whom, of course, nothing can be demanded beyond their respective quotas of the village assessment. In these cases, the settlement is, literally speaking, *Ryatwara*, although the lease is issued only in the name of one, or at most of two sharers in the estate. The remaining part of the province may be comprised under two descriptions of estates: first; those villages in which the right of property is recognized in the heirs of former grantees, while the right of cultivation remains with the descendants of the original occupants. In these, the rents are commonly paid in "*kúth*," or kind, at an invariable rate, as fixed at the period of the grant. Secondly; all villages in which the right, both of property and occupancy, have become vested in one and the same individual. In these, the *malguzar* has necessarily the discretion of demanding the full extent of the "*malik hissa*," or government share, supposing no fixed agreement to have been made between him and his tenants; but such improvidence on the part of the latter rarely occurs, and the great competition which exists for

cultivators, in consequence of the contracted state of the labouring population as compared with the extent of the arable land, will long secure favorable terms and treatment to this important class of the community. Under this description of villages are included those newly brought into cultivation, and the *paekasht* lands; of the first, the proprietary right is always granted to the reclaimer, in consideration of the expense incurred by him in the enterprise. By the term *paekasht*, is implied all lands which are cultivated by non-resident tenants. In the *Tarai* the system of rents is, in some respects, different. The estates there are, generally speaking, of large extent, but none are permanently inhabited with the exception of the villages of the *Tharus* and *Boysas*, in the low *Tarai*, adjoining *Rohilkhund*. In these, the rents are calculated by the plough of land at an easy rate, never exceeding the proportion of one-tenth of the gross produce. In the upper parts of the *Tarai* the farms are temporarily occupied by the hill zemindars during the cold season; during the remainder of the year, the danger of the climate occasions their almost total desertion. The *rebbi* crop, consequently, forms the chief source of rent to the *malguzar*: the individual rates vary from four annas to three rupees the plough, according to the supply of water available for irrigation.

The local divisions having been found inconveniently numerous for the purposes of account and management, many of the petty divisions have recently been united to the adjoining pergunnahs, of which they will, in future, form sub-divisions, while a few districts, composed of villages dispersed in various parts of the province, have also been broken up, and their villages re-incorporated with their original pergunnahs.

By these arrangements, the number of pergunnahs has been reduced to twenty-six, as detailed in Statement (A).

The revenue establishments now consist of four Tehsildaris, the relative extent and expense of which are as follows:

| | *No. of Villages.* | *Annual Jumma.* | *Annual Expense.* |
|---|---|---|---|
| *Kumaon*,—Hazur Tehsil, .... | 4421 | 90253 | 3030 |
| Kali Kumaon, .... | 1162 | 28940 | 2106 |
| *Gerhwal*,—Srinagar, .... .... | 2241 | 28149 | 2148 |
| Chandpur, ..... | 1210 | 29321 | 2148 |
| Total,..... | 9034 | 176663 | 9432 |

On the 1st June 1816, the number of Tehsildaris was eight at an annual expense of 20,216 rupees: since that period a reduction has also been effected in the sudder native establishment, the yearly total of which is now 7,488, instead of 9,810, as it then stood. The Defteris, or Qanoongoes, nine in number, receive salaries to the aggregate of 3,009 rupees per annum. Nine pergunnah Putwaris have been established with a monthly stipend of five rupees each. The revenue of the resumed *nankar* lands has fully covered these allowances.

Of the mode of collections, it is only necessary to state, that the demand is divided into four kists, three of which fall on the *kharif*, and one on the *rebbi* crop. No *talabâna* is levied from the *malguzars*.

Transit duties of every description were finally abolished in this province in 1818. The consumption of spirituous liquors and drugs is trifling, and the revenue from that source correspondingly small, the present not exceeding 500 rupees annually. The use of stampt paper has been partially introduced in judicial proceedings, during the last two years. The annual receipt on this account now amounts to 2,000 rupees. A comparative view of receipt and expenditure of the province in the years 1815-16 and 1822-23, will be seen in the Appendix, Statement (E.)

The rent-free lands may be classed under two heads, first the "*Gunt*," or religious assignments, and secondly those granted to individuals. The "*Gunt*" villages amount to 973 and contain about 1-15th of the arable lands of the province, all of which are permanently alienated from the rent-roll of government. There are 175 villages enjoyed by individuals, the *rakba* of which may be estimated at 3000 *bísís*, or 1-70th of the arable lands of the province: the terms on which these lands are held are various, mostly for life. The largest rent-free estate in the possession of an individual yields about 1,000 rupees, per annum, and is held on a grant from the Nipal government in tenure of perpetuity. The total revolution which took place in the government at the *Gorkha* conquest, and the comparative recentness of that event, will explain the small extent of the Jagir lands. At that period, all grants in favor of the public and private servants of the former Rajas were resumed, and subsequently, the Jagirs of private individuals, including even those of the Brahmins, were, with few exceptions, subjected to the same measure. During the last seven years, upwards of 150 villages, including those in *nankar*, have been re-annexed

to the rent-roll. The greater part of these had been surreptitiously abstracted from the public assessment by the connivance of the executive officers of the Nipal government. The pensions chargeable on the revenues of this province, amount to 21,670 rupees per annum, according to the following distribution.

PENSIONS OF FORMER GOVERNMENT.

| | *Per Annum.* |
|---|---|
| In perpetuity to religious establishments,..... | 2,152 |
| For life to individuals, ..... | 348 |

GRANTED BY BRITISH GOVERNMENT.

| | |
|---|---|
| For life in Political Department, ..... | 9,600 |
| Do. do., Military invalid allowances, ..... | 9,570 |

It now only remains to offer a few concluding observations on the estate of the province and of its inhabitants.

The deterioration which had taken place under the *Gorkha* government, has already been mentioned. On the conquest in 1815, cultivation was found at its lowest ebb, the rent-free villages alone exhibiting a thriving appearance. The laboring classes had been reduced to the extremest indigence, while the Kamíns and Síyanas were, for the greater part, overwhelmed with debts, contracted for the liquidation of the public demands. Since that period, a variety of causes have combined to ameliorate the condition of the industrious portion of the community. Light assessments, attended with constant high prices of produce, have more than doubled the profits of agriculture, while the increased competition which has taken place in the trade with this province, has considerably enhanced the value of its exports. To the labouring classes, more particularly those in the neighbourhood of the military posts, the public works and the transport of stores have afforded continued sources of employment. The aggregate expenditure under these heads, during the last eight years has probably, not been much short of four lakhs of rupees, a large sum as compared with the amount of the population by which it will have been absorbed. It cannot however, be denied, that the demand for labor on these accounts has, at some period, been so excessive as to prove the occasion of inconvenience and hardship to the people concerned. Partial reductions in the military force, and the augmented resources of the province, have, in some measure, counteracted the evil. The whole province exhibits ample proofs of improvement; indeed it may be fairly stated, that the present cultivation exceeds that of 1815, in the pro-

portion of full one-third. From the subdivided state of landed property, which here exists, few individual landholders have the means of acquiring wealth, but though all connected with the soil are confined to a state of equality, their condition, as a body, is no doubt superior to that of any similar class of tenants, in any part of the Company's territories. A knowledge of these advantages has induced a continual emigration of cultivators from the adjoining provinces of the Rajas of *Nipal* and *Gerhwal*. To some of the principal Kamíns and Brahmins, the introduction of the British Government by destroying their former influence, has proved a cause of regret, but to the great bulk of the population, this event has been a source of unceasing benefits and congratulation.

## ADDTIONAL OBSERVATIONS.

*Page* 137. The province of *Kumaon*, as now formed, comprises the whole of the Raj of that name, together with a large portion of the principality of *Gerhwal*. Strictly speaking, the name of *Kumaon* is applicable only to the country lying between the *Kali*, or *Gogra*, and the *Ramganga*, to which tract it was given by the Rajas of the last race, who sprung originally from a chieftain of the pergunnah of that name. The appellation of *Gerhwal* is said to have been derived from the number of *Gerhs* (Fort) formerly existing there. *Almora* is said to have been so named from the abundance of wild sorrel (*Almori*) which grows in its vicinity.

*Page* 153. A remarkable variety of snake is the "*Churao*," a species of *Boa* of immense size, found only on high mountains, and in the wildest solitudes. It is said to prey chiefly on *deer* and other wild animals, but occasionally seizes and swallows cattle which may have approached its cave. By the lower orders, more particularly the herdsmen, fabulous powers and features are ascribed to this animal: among other wonders, it is said to possess a long flowing mane of red hair, and to make use of a large pine tree as a walking stick, when descending the mountains. Of the real existence of the *Churao*, (stripped of these wonderful attributes) there can be no doubt, as it is occasionally killed by hunters.

The "*Gola*," or "*Gosamp*," is nearly white in the northern parts of the hills, and its skin, which is extremely hard, and forms a handsome material for sword scabbards, is rendered the more valuable from the scarceness of the animal.

*Page* 160. They represent themselves as being the descendants of one of the aboriginal princes of *Kumaon*, who, with his family, fled to the jungles to escape the destruction threatened by an *usurper*: under the pretension to royal origin, the *Ráwets* or *Rajís*, abstain from offering to any individual, whatever his rank, the usual eastern salutation. The origin of this tribe, howsoever the claim to regal descent be disposed of, must certainly be referred to some race of inhabitants anterior to the settlement of the present race. The great difference in customs and religion from the Hindoo tenets, which exists among the *Rajís*, might be ascribed to the savage mode of life pursued by them and their ancestors for so long a period, but the total dissimilitude of language, which renders the *Rají* and present *Kumaya* wholly unintelligible to each other, cannot be accounted for in the same mode, and can only be attributed to a separate origin. A conjecture may be hazarded, that the outcastes, or *Doms* are in part descended from the aborigines. A marked difference exists in the personal appearance of this class and of the Hindoo inhabitants; the former being, for the most part, extremely dark, almost black, with crisp curly hair: they are, at the same time, in a state of nearly universal slavery, a circumstance which, from its extent, can scarcely be ascribed wholly to the mere process of purchase, but which may be explained by supposing a part of the aboriginal inhabitants to have been seized by the first Hindoo colonists, and reduced to slavery, in which state their descendants have since remained.

*Page* 161. The name "*Badari*," is derived from *Budari*, *Sanscrit*, the *Beri* or *Jujube*. The legends respecting the origin of this idol differ: by one account, it is said to have been, in remote ages, an object of peculiar veneration and worship in the adjoining province of *Thibet*, from whence it fled, about seventeen centuries past, to the spot on which the temple now stands: the second; and more probable legend, represents the idol to have originally found in the river near the temple, which was then erected and dedicated to it by *Lankarachari*, a Missionary from the peninsula of India: the appearance of the idol, which bears scarcely any resemblance to the human form, and exhibits evident traces of having been once worn, and polished by the action of water, gives strength to this tradition.

*Kedarnath*, an incarnation of *Sadasheo*, is not a form of *Vishnu*,* but the word "*Kedár*," is derived from "*Ke*," San-

* This correction of the original passage, by the author himself, had not been received when page 161 was printed.—H. H. W.

scrit, water, and "*Dar*," abounding with: the worship of this idol, at its present site, is carried back to the remote of fabulous ages, being ascribed originally to the *Pándavas*. These brothers, after their battles with the giants, are said to have proceeded to *Haridwár*, with a view to expiations and to worship *Sadasheo*. That god, alarmed at their approach, fled under the form of a buffalo, and was pursued by them to *Kedár*, at which spot he dived into the earth, leaving only his posteriors visible above ground. This part, of which the *Pándavas* established the worship, continues to receive the adoration of the pilgrims at *Kedár*. The remaining portions of the body of the god receive worship at the temples of "*Kalpeswar*," "*Madhyameswar*," "*Rudranath*," and "*Tunganath*," all situated along the *Himalaya* chain, and which, together with *Kedarnath*, form the *Panch Kedár*, a peculiar object of pilgrimage to pious votaries, but which, from the difficulties of the roads, few are able to accomplish.

In the rear of *Kedár* is the *Himalaya* peak of "*Maha Panth*," celebrated in Hindu mythology, as the point at which the *Pándavas* devoted themselves, and from whence they were taken up to heaven: a similar blessing, it is believed, will be conferred on every virtuous and pious person, who may reach the peak, or perish in the way; from twenty to twenty-five votaries annually sacrifice themselves in the attempt to ascend the *Maha Panth*, or "*Great Way*," or by throwing themselves over a precipice, called *Bhyrava Jhamp*, in the neighbourhood: by suicide, at the latter spot, the votary expects to have realized in his future state, that object and wish for which he expressly devotes himself. These suicides are chiefly from *Guzerat* and *Bengal*, and commonly leave their houses for the avowed purpose of proceeding to *Maha Panth*, and such sacrifices by hill people are rare; it may, therefore, be reasonably presumed, that they are not occasioned by the influence or suggestions of the priest and attendants of the temple.

*Paye* 164. The personal appearance of the inhabitants varies in a marked degree, in different parts of the hills, though the same general caste of countenance, a lank face, with prominent features, prevails throughout. In the northern districts, the people are short, stout-made and fair, while in the southern hills, the stature is somewhat greater, the form spare, and the complexion sallow: the natives of the mid-land pergunnahs, present a medium appearance between the two first mentioned classes. The children of both sexes are, generally speaking, every where fair and handsome, but as the boys approach to

manhood, their features become coarse, and their face loses its fulness. The females, from constant exposure to the weather and from incessant labor, lose all pretensions to good looks at an early age, and when advanced in life, are commonly remarkable for their extreme ugliness. Women of the higher ranks not subject to such vicissitudes, must be excepted, as they are, invariably fair and often beautiful.

A similar variation in costume exists in the hills. In the northern districts, the principal article of dress, consists of an unsewn web of cloth either of hemp or wool. In the males this is thrown over the shoulders, and descends down behind to the knees, from whence it is doubled, and carried back over the shoulders; the two ends are fastened on the breast by wooden or metal pins, the corners being passed over and under the opposite shoulder, the sides are drawn forward, so as to meet over the body, and are secured in that situation, by a kumurbund of cotton or hempen cloth. A narrow strip of cloth passed between the legs and fastened by a string round the waist, and a skull cap, complete the suit. The arms and legs are thus left bare and unencumbered; in rigorous weather, however, blanket-trowsers are partially worn. The women fasten the web of cloth, in a somewhat different mode, as it reaches to the heels and hangs full like a petticoat, and in addition they wear commonly a boddice of dark colored chintz, and a narrow scarf of white cloth. In other parts of the province, the dress of both sexes resembles that of the corresponding classes in the plains, excepting that the turban is little used, and the *"jaguli,"* or *"jama"* reaches only to the knees. It may be observed, generally, of the hill people, that they are extremely indifferent in regard to the state of their every-day apparel, and continue to wear their clothes till reduced to mere shreds and tatters, but on holidays and festivals, individuals of either sex prefer absenting themselves from the festivities, to appearing in a worn out garment.

The great bulk of the population subsists on the coarse grains, such as *mandua, jangiora, koni, chena, mana,* &c., and the inferior kinds of pulse, *urd, gahut, bhat, raens,* &c. The *mandua,* is either made into bread, or is dressed as porridge, *"bari,"* and seasoned with *"jholi,"* buttermilk and turmeric boiled together—the *chena* and *koni,* are also made into bread, or boiled whole, and eaten as rice. When travelling, the lower classes live chiefly on *"satu,"* the meal of parched barley, of which every individual carries a supply with him: this article requires only the addition of a little water to prepare it

for eating. Rice forms the favorite food of all those who can afford to purchase it. Wheat is only in partial consumption, chiefly on occasions of entertainments at marriages, &c., when the peculiar scruples of Hindus prevent the use of rice. Vegetables of all kinds, both cultured and wild, are objects of universal consumption; among the latter description, not already noticed, may be mentioned the nettle, fern, tulip, *malú*, &c., of which, the shoots, root and bean, respectively, are eaten: the list of herbs, roots, and leaves, considered edible by the natives, is endless: indeed, from their indiscrimination in this respect, fatal cases of poison sometimes occur. During the periodical residence of the agricultural classes in the *Tarai*, their principal food is "*guya*," or sweet potatoes, boiled and eaten with buttermilk.

Animal food is in much request among all classes; with the exception of those animals, the use of which, as food, is prohibited by their religion, and excepting also reptiles of all descriptions, and carrion birds or beasts, every sort of animal is converted to food, in some part or other of the hills: by the southern *Gerhwalís* rats and mice are considered as dainties. The favorite flesh is that of the goat, or of the sheep, where bred: against the sheep of the plains, an universal prejudice exists, its long tail rendering it, in the eye of the highlander, a species of dog. No scruple as to the mode of decease exists, and animals dying a natural death from disease, or other cause, are eaten by the Hindus, as well as by the *Doms*.

Tobacco is smoked by all, but the highest cast Brahmins, who substitute *chirras*, the inspissated juice of the hemp plant: they, however, chew the leaf pounded and mixed with lime, a practice which prevails also among the other classes.

The use of spiritious liquors is, in *Kumaon* confined to the lowest class or *Doms*: in *Gerhwal*, the Hindus are less scrupulous, and excepting a few Brahmin families, all drink a species of whiskey there manufactured, either from rice or barley; at the same time, they will not touch the common kinds of spirit, as prepared in the plains; the objection to the latter arising from the mode in which the liquor is made, as well as from the caste of people by whom the manufacture is carried on, whereas the *Gerhwal* spirit is prepared by Hindus of the Rajpoot caste, and is fermented by the juice of particular roots, against the use of which no religious prejudice prevails. Intoxication is rare, and takes place only at the religious festivals.

The mildness of the temperature of the hills would lead to the expectation, that the inhabitants would enjoy an exemption from most of the diseases incident to less favored countries, and that a different state takes place, is doubtless to be attributed, in a great measure, to the people themselves. By their avocations, the labouring classes are occasionally compelled to descend into the vallies, the air of which is invariably noxious during half the year. The purity of the natural atmosphere, is also counteracted by the state in which the villages are kept: the dung heap forms a prominent object in front of, and contiguous to every farm: the villages are commonly buried in dense crops of gigantic hemp, while the houses are enveloped with a profusion of scandent vegetables, such as cucumbers, water-melons, pumpkins, &c., &c. From the united operation of these causes, during the worst season of the year, general sickness prevails throughout the hills, in the shape of quotidian, tertian and quartan fevers. Contagious and typhus fevers occasionally break out, generated no doubt, from an excess of the same cause. These always exhibit the rapid and malignant features of plague, as does also the small pox, which proves extremely destructive whenever it visits the hills. Rheumatism is common during the cold weather. Cutaneous eruptions of various kinds are universally prevalent among all ranks, and are ascribed by the inhabitants to the use of spring water. Leprosy does not appear so common as in the plains. To the above must be added affections of the spleen and of the lungs, bowel complaints, stone and dropsy, all of which are frequent. A general disinclination prevails among the lower classes to the use of physic, on the avowed principle, that from the pureness of their general diet, their stamina is not sufficiently strong to stand the effects of powerful remedies: cooling drafts and restoratives are, however, taken without hesitation: those in most general use, are infusions of fennel seed, black pepper, or cheraita, in water. In most disorders, recourse is had to cauterizing, performed by the application of lighted balls of tow, or of some other similar substance, either to the back of the neck, the breast, or the pit of the stomach. Firing by means of an iron, is also resorted to in cases of strains, swellings, or rheumatism. In all diseases, the principal reliance for their care is placed on charms tied to the person of the patient, on magnetism, and on various superstitious ceremonies and sacrifices. Inoculation is never thought of in the interior, till the small pox actually appears in the village itself, or in the immediate neighbourhood, and then, from the unskilful manner in which it is performed, or from the use of virulent matter, the precaution proves, in frequent instances, ineffectual. In

the case of this, and of other contagious distempers non-intercourse is found, by the inhabitants, to be the best preventative, and with this view they sometimes abandon their villages, and retreat, temporarily, to the summit of an adjoining mountain, and there continue for some days, till they presume the contagion to have passed away. Considering the rude state of medical science in these hills, it is somewhat remarkable, that lithotomy should be in common practice: this operation is performed on subjects of all ages, and apparently with very general success. The operators are from among the low caste *Dom*, and the only instruments used, are a razor and a pair of common forceps. Some notice may here be taken of the *Goitre*, which is common in these hills, although it is here a disease which injures only the personal appearance and not the bodily health or mental faculties of the subject. This affection has been ascribed to various local peculiarities, or to a peculiar susceptibility in the constitution of mountaineers, but the example of these hills fully demonstrates, that it cannot be referred exclusively to any one of the commonly assigned causes. The *Goitre* is here found among the residents of most elevated villages, as well as among those of the low vallies, in spots where snow is never seen, as well as in those near which it for ever lies; in districts where no minerals are known to exist, as well as in those abounding with mines; among people who drink none but river water, as well as among those who use only springs: among the rich equally with the poor; and lastly, it attacks individuals recently from the plains, as well as the natives of the hills. A conjecture may be hazarded, that the *Goitre* is in part produced by the effects of the keen mountain air acting on the exposed throat; a covering to that part seems at any rate to be the most effectual remedy as well as preventative; in cases of incipient *Goitre* the natives have immediate recourse to the use of a neck cloth, formed of *otter* skin, or some other warm substance, which is worn till the swelling has wholly subsided; and although instances have occurred here of European females and children being attacked by *Goitre*, no case of any European male being so afflicted has yet taken place. Various *nostrums* and remedies are prescribed by the native practitioners: among the latter, a simple sold in the bazar, under the name of *Gellur Patta*, is in most request. Outward applications, cauterizing and issues, are also resorted to, but all, notoriously, without the slightest prospect of success in any but incipient cases. In closing this subject, it may be observed, that the practice of the *Baids*, or Brahmin physicians, among the upper classes, is on a par with that in the plains, whither such prac-

titioners are originally sent to study medicine. Musk appears to form an ingredient in almost every remedy administered by them, and, indeed, the inhabitants of the hills, universally entertain the greatest confidence in the medicinal virtues of that drug.

The population of the interior, as has been already stated, is comprised almost solely of the agricultural classes. From the nature of the country, the communication between villages is commonly both tedious and laborious, and the intercourse of the inhabitants of even adjacent hamlets is confined to the periodical festivals which occur at neighbouring temples: on these occasions again, the meeting is composed wholly of the villagers of the surrounding district, and the presence of individuals from other parts of the hills is viewed almost as an intrusion. This state of restricted intercourse, continued through ages, has tended to preserve a distinctness of character and manners among the mountaineers, who accordingly still exhibit the compound of virtues and defects common to agricultural tribes in a rude stage of society. Honest, sober, frugal, patient under fatigue and privations, hospitable, good humoured, open and usually sincere in their address, they are at the same time, extremely indolent, fickle, easily led away by the counsel of others, hasty in pursuing the dictates of passion, even to their own immediate detriment, envious of each other, jealous of strangers, capable of equivocation, and petty cunning, and lastly, grossly superstitious. To personal courage, the lower order make no pretensions; the high Rajpoot families, who are most part descended from western adventurers are in no way deficient in the inherent spirit of their race. Conjugal affection has scarcely any existence in the hills; wives are universally considered and treated as part of the live stock, and little or no importance is attached to the breach of female chastity, excepting when the prejudices of caste may thereby be compromised. To their children, they, however, evince strong affection, and instances of suicide, by fathers as well as mothers, from grief for the loss of a child, are far from uncommon. The indolence of the male sex is insuperable, even by the prospect of gain, and the whole labor of the domestic economy and of agriculture, excepting only ploughing and harrowing, is left to the women; and a rate of wages, greater by one half than that which exists in the plains, fails in inducing the voluntary attendance of day laborers: the people of this class will, however, without hesitation wander hundreds of miles, and spend weeks to gain a few annas by peddling the commodities of the plains. All mountaineers unite in an excessive distrust of the natives

of the low country, whom they regard as a race of swindlers and extortioners; the jealousy with which the mountaineers of one pergunnah view those of another amounts to a spirit of clanship, which feeling may, doubtless, be ascribed to the state of government that, at one time, existed in these hills, when every pergunnah and subdivision formed a separate and independant principality. Local attachments are very predominant, and an eventual return to their natal village continues to be the cherished hope of those, whom the want of means of subsistence may have compelled to migrate; from the same sentiment, the petty landed proprietors entertain an overwhelming affection for their hereditary fields. Of the honesty of the hill people, too much praise cannot be given; property of all kinds is left exposed in every way, without fear and without loss: in those districts whence periodical migration to the *Tarai* takes place, the villages are left with almost a single occupant during half the year, and though a great part of the property of the villagers remains in their houses, no precaution is deemed necessary, except, securing the doors against the ingress of animals, which is done by a bar of wood, the use of locks being as yet confined to the higher classes. In their pecuniary transactions with each other, the agricultural classes have rarely recourse to written engagements, bargains concluded by the parties joining hands, ("*hath marna*") in token of assent prove equally effectual, and binding, as if secured by parchment and seals. If exceptions to this general character for honesty exist in the hills, they are to be found only in the class of *Doms*, or outcastes, who are commonly of loose and dissipated habits, confirmed, if not acquired, by continued intercourse with the plains. At a former period, the higher orders would appear to have been rapacious, oppressive, and vindictive, and acts of violence and bloodshed, perpetrated from motives of rapine or revenge, were of common occurrence. The impotence of the government, which had neither the power to repress outrages, nor to redress injuries, was doubtless the principal cause of these disorders, which, under the strong and vigorous system of the *Gorkhas*, soon ceased, and all classes are now equally conspicuous for their order and submission to public authority. The mountaineers are of a lively disposition, much inclined to singing, dancing and sports; they are also fond of hearing and relating tales, and of puzzling one another with riddles; games of ball are prevented by the nature of the country, but sports of other kinds are numerous; and among them the Englishman will recognize Hocky, and many other games familiar to his youth. The most common sedentary amusements are *Bagh Bakri*, fox and geese, *Ramchúr*, drafts and chowper;

chess and cards (*Ganjifa,*) are played by the higher classes at *Almora* and *Srinagar,* among whom, more particularly the Brahmins, an inclination for gambling is generally prevalent. The style of dancing has been noticed among the religious ceremonies. The singing is of three kinds, each with its peculiar time and measure; 1st, the *Bharao,* a species of dramatic recitation in which two or more characters are brought forward, the measures varying with the subject. In this class are also comprised the hymns, in honor of the local gods and demigods. 2nd. The *Josa* ballads, composed on popular and passing events, the time of which is quick and lively, more particularly in the chorus. 3rd. The *Byri* or *Bhagnaol,* a species of duet, sung commonly by a male and a female, who respond to each other in extemporary stanzas alternately. The subject has commonly reference to the situation or actual occupation of the parties, clothed in numerous metaphors and similies, drawn chiefly from vegetable products: where the parties are skilful, the *Byri* is made the vehicle of personal praise or satire: this style of singing is highly popular in the *Kumaon* pergunnahs, and it is there a common saying, that no female heart can withstand the seductions of an accomplished *Byri* singer. The measure is slow and plaintive.

The only musical instruments in common use, are drums of various kinds, as in the plains, and the shepherd's pipe; this latter is rude and simple, formed from the small hill bambu: its power, as well as that of the performers, appears to be confined to a few notes continually repeated and prolonged: when heard in the glens and dells, the melody of this instument is wild and pleasing.

An attempt to collect the numerous superstitious beliefs current in these hills, would be an endless task, the result of which would by no means repay the labor bestowed, as these beliefs are for the most part rude and gross, displaying neither imagination nor refinement in their texture. The mountaineers believe implicitly in the existence of the various tribes of ghosts, evil spirits, demons goblins, faries, elves, &c., and have, moreover, the fullest confidence in the powers of sorcery and witchcraft; a few of the most current superstitions, under these several heads, may be stated.

The ghost tribe is divided into numerous varieties; the first and most formidable is the *Bhút,* or ghost: individuals who may have died a violent death, whether by murder, execution, drowning, and to whose remains due funeral honors may

not have been paid. The *Bhút* continues to haunt his descendants for generations in an invisible shape, and requires to be occasionally appeased by sacrifices and offerings. *Masán* or imps, are the ghosts of young children, the bodies of whom are buried, and not burnt, and who prowl about the villages in the shape of bears and other wild animals.

*Tola* or Will-o'-the-Wisps, are the ghosts of bachelors, that is of males, who may die at mature age unmarried. The society of the *Tolas* is supposed to be contemned by all other classes of ghosts, and they are, accordingly, seen only in wild and solitary places.

*Airí*, the ghost of a person killed in hunting, is believed to haunt the forest in which the accident may have occurred, and is heard, from time to time, hallooing to its dogs. To hear the voice of the *Airí* portends some calamity to the hearer.

*Acherí*, or fairy, the ghosts of young female children; these reside on the tops of the mountains, but descend at dusk to hold their revels in more convenient spots. To fall in with the train, at the time, is fatal, as the *Acherí* punish such intrusions with death: they occasionally also molest those who may cross the sites of their abodes during the day, more particularly females, who may have any red articles of dress on their person at the time, the *Acherí* bearing a peculiar antipathy to that color. When female children are taken suddenly ill, it is immediately concluded that the *Acherí* have cast their spell or shadow (*cháyá*) on the child, with the view of adding her ghost to their numbers. The optical illusions and shadows, seen in various mountainous countries, are also occasionally visible on some of the mountains in this province, which are accordingly celebrated as the peculiar resort of the *Acherí*, as the processions of elephants, horses, &c., which sometimes appear on the summits, are naturally ascribed to those ideal beings. A hill opposite to *Srinagar*, is celebrated in this respect; the train of shadows which, from time to time, appears to move along its ridge, continues visible for some minutes, and is, in consequence, viewed by numbers of the inhabitants of the town. It is therefore certain, that these shadows originate in physical causes, and are not created by the imagination of individuals. The theory, by which this illusion is explained in other places, is particularly applicable here, as the shadows in question, are invariably seen at the same hour, that is, when the sun is sinking below the horizon.

The *Deos*, or demons, form a numerous class, and scarce a village but has its particular *Deo*: some of the tribe are obnoxious to men, others to women or children, while a more ignoble race vent their malice on cattle. An account of one of these *Deos* will serve as a description of the whole tribe. This demon, called *Rúnia*, haunts the north pergunnahs of *Kumaon*, removing, occasionally from one place to another; in his migrations, he makes use of a large rock for a steed, on which also he nightly perambulates the villages in the vicinity of his residence. Though invisible to the eye, his approach is indicated by the clattering of his massive courser: he molests only females: should he, in his excursions, fall in with, and take a fancy to any woman, her fate is assured; from that moment she is haunted by him incessantly in her dreams, and gradually wasting away, she falls eventually a victim to his passion. Such is the ancient belief regarding *Rúnia*, and an infatuated conviction of having become the object of his choice, is not uncommonly attended with a fatal termination.

The power of occasioning sickness, and even death, by means of incantations, *Ghát*, is ascribed to those skilled in witchcraft. The *Bogsa*, or sorcerer, is further supposed to be capable of assuming the form of a wild beast (as the man-wolf of Germany,) for the purpose of destroying his enemies. An old man residing near *Srinagar*, and practising as a physician, is a most notorious *Bogsa*, and is believed by his neighbours to be not less than two hundred years old: the reputation of having devoured many individuals, under the form of a tiger, cost him the loss of his teeth, many of which were extracted, by orders of the then *Raja*, to render him less formidable in his future metamorphoses.

The evil eye has its effects here, as elsewhere, and many cases of sickness are ascribed to its operation. In *Gerhwal*, a peculiar superstition exists, which ascribes to inanimate objects the same effects as the evil eye. This is called *Bed,h Hona*, literally "becoming a mark to;" as where a new house, from being built on an eminence, or from its superior height, becomes a prominent object to, and overlooks other houses, the latter, in respect to it, are said to be *Bed,h Luga*, or "struck," and the sickness or death of the inmates can only be prevented by the lowering or total removal of the obnoxious building. This prejudice has no connexion with the jealous feelings regarding privacy common to the east, as similar effects are ascribed to houses, and even rocks on opposite and distant mountains, as well as to erections in the immediate vicinity. With so many imaginary

sources of calamity and sickness, independent of natural causes, the population must have become extinct, had not the means of prevention and cure for the former existed, possessing the full confidence of the inhabitants. Religious ceremonies, sacrifices, exorcism, and counter-charms are resorted to in all cases of sickness ascribed to the malice of ghosts, demons, fairies, and witches. In cases of temporary affection, such as fits, &c. the devil is driven out either by flogging the possessed with nettles, or by fumigation with some horrible odour. A belief in the temporary and occasional presence of a deity in the bodies of individuals, is here universally prevalent, and the superstition applies equally to all the local deities, and to persons of both sexes, of all castes and classes. Individuals subject to the inspiration of some particular deities are, on such occasions consulted as oracles, but in most instances the fit evaporates in dancing: this consists in the motion of the head or body, at first; slow and gradually quickening, till it becomes convulsive, and beyond the control of the inspired, and is thus continued till utter exhaustion: during this ceremony, the excitement is created and kept up by the music of a drum beat by one of the spectators.

Drought, want of fertility in the soil, murrain in cattle, and other calamities incident to husbandry, are here invariably ascribed to the wrath of particular gods, to appease which recourse is had to various ceremonies. In the *Kumaon* districts, offerings and singing, and dancing are resorted to on such occasions: in *Gerhwal* the measures pursued with the same view, are of a peculiar nature, deserving of more particular notice. In those villages of which *Kali* is the tutelary divinity a sacrifice of bull buffalos is offered up: the number of animals slaughtered on such occasions varies with the means of the inhabitants: each buffalo is successively led to the door of the temple for decapitation: the first stroke is inflicted by the principal zemindar, and if not immediately fatal, is followed up by repeated blows from the surrounding crowd, until the animal is despatched, or rather hacked to pieces. In villages dedicated to the protection of *Mahadeva*, propitiatory festivals are held in his honor: at these, *Badís* or rope dancers are engaged to perform on the tight rope, *Lang*, or to slide down an inclined rope stretched from the summit of a cliff to the valley beneath and made fast to posts driven into the ground. The *Badí* sits astride on a wooden saddle, to which he is tied by thongs: the saddle is similarly secured to the *bast*, or sliding cable, along which it runs, by means of a deep groove, sand bags are tied to the *Badí's* feet sufficient to secure his balance, and he is then, after various ceremonies and

the sacrifice of a kid, started off. The velocity of his descent is very great, and the saddle, however well greased, emits a volume of smoke throughout the greater part of his progress. The length and inclination of the *bast* necessarily vary with the nature of the cliff, but as the *Badí* is remunerated at the rate of a rupee for every hundred cubits, hence termed a *tola*, a correct measurement always takes place: the longest *bast* which has fallen within my observation was twenty-one *tola*, or 2100 cubits in length. From the precautions taken as above-mentioned, the only danger to be apprehended by the *Badí* is from the breaking of the rope, to provide against which, the latter, commonly from one and a half to two inches in diameter, is made wholly by his own hand: the material used is the *bhober* grass. Formerly, if a *Badí* fell to the ground in his course, he was immediately dispatched with a sword by the surrounding spectators, but this practice is now of course prohibited: no fatal accident has occurred from the performance of this ceremony since 1815, though it is probably celebrated at not less than fifty villages in each year. After the completion of the sliding, the *bast* or rope, is cut up, and distributed among the inhabitants of the village, who hang the pieces as charms at the eaves of their houses. The hair of the *Badí* is also taken and preserved as possessing similar virtues. In being thus made the organ to obtain fertility for the lands of others, the *Badí* is supposed to entail sterility on his own; and it is firmly believed, that no grain sown with his hand can ever vegetate. Each district has its hereditary *Badí* who is supported by annual contributions on grain from the inhabitants, and by remunerations for his performance, at the occasional festivals in question.

In the *Kumaon* districts, a practice prevailed at the festival of the *Bagwali*, of the males of several villages, meeting together at a particular spot, and there, divided into two parties, engaging with slings. Each party took post on the opposite bank of a stream, the passage of which formed the object of contest: as the mountaineers are generally expert in throwing stones with this instrument, bones were frequently broken, and even fatal accidents sometimes occurred in this sport. The apprehension of incurring a charge of murder in the event of such fatal termination, has led to the almost total cessation of the practice since 1815.

# APPENDIX.

## LIST OF EXPORTS FROM THE HILLS TO THE PLAINS.

| | | | |
|---|---|---|---|
| Grain, of all kinds. | Mitha. | Hempen, Cloth. | Hill Paper. |
| Pulse, ditto ditto. | Various kinds of Bark | Chirras. | Hill Bambus. |
| Oil Seeds, ditto ditto. | Roots and Herbs, used | Opium. | Wooden Vessels. |
| Turmeric. | either for dyes or me- | Ghee. | Hides. |
| Ginger, green and dry. | dicines. | Oil. | Cowtails, (Chaurs.) |
| Saffron, Cashmere. | Tej Pat, leaves of wild | Honey. | Ponies. |
| Ditto, Hill, (Nagkesar.) | Cinnamon. | Wax. | Cattle. |
| Hill Cardamums. | Red Pepper. | Musk. | Gold Dust. |
| Mari, Frankincense. | Dannas, Hill Pomegra- | Hawks. | Iron. |
| Kalki. | nates. | Borax. | Copper in bars. |
| Laljiri. | Walnuts and Hazelnuts. | Silajit, (Bitumen.) | Course Larges, (Pan- |
| Nerbissi, Zedoary. | Pine Almonds. | Khara Mitti, (Chalk.) | khis.) |
| Archa, Rhubarb. | Sweet Potatoes, (Guya.) | Harital. | |
| Cheiraita. | Hemp. | Birch Bark. | |

## PRODUCE OF THE TARAI, EXPORTED TO THE PLAINS.

| | | | |
|---|---|---|---|
| Timbers. | Wooden Vessels. | Oil. | Baber grass. |
| Rafters. | Charcoal. | Grain, of all kinds. | Mung ditto. |
| Planks. | Lime. | Pulse, ditto ditto. | Tat. |
| Bambus. | Gum. | Oil Seeds, ditto ditto. | Bara. |
| Oil and Sugar Mills. | Gum Lac. | Sweet Potatoes, (Guya.) | Roghen. |
| Ebony. | Kath. | Turmeric. | Bana Lochun. |
| Firewood. | Ghee. | Red Pepper. | |

## LIST OF IMPORTS FROM THE PLAINS.

| | | | |
|---|---|---|---|
| Cotton Piece Goods, Country and Europe. | Tobacco, raw and pre- served. | Indigo, Lac, and other Dyes. | Tin. |
| Cotton Prints, do. do. | Gur, soft Sugar, Sugar | Alum, Potass, &c. | Kanch. |
| Silk Goods. | Candy. | Sulphur and various | Lead. |
| Broad Cloth. | Salt. | drugs. | Gunpowder. |
| Cotton and Cotton | Spices of all kinds. | Hard-ware of all kinds. | Coral. |
| Thread. | Betelnut. | Copper in Sheets, (Eu- | Pearls and Jewels. |
| Wool. | Cocoanuts. | rope. | Gold and Silver |
| Blankets. | Dried Fruits. | Toys Beads, Looking | Laces and Thread. |
| | Soap. | Glasses, &c. | Country Paper and |
| | | | Ink. |

# STATEMENT A.

SHEWING THE NUMBER OF VILLAGES, HOUSES, AND CATTLE, IN THE KUMAON PERGUNNAHS.

| Names of Pergunnahs. | Detail of Villages. | | | | Detail of Houses. | | | | Detail of Cattle. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Khalsa. | Rent-free to Individuals. | In Religious Assignments. | Total of Villages. | In Khalsa Villages. | In rent-free Villages. | In assigned Villages. | Total of Houses. | Buffalos. | Cows. | Oxen. | Total of Cattle. |
| Palí, .. | 1101 | 2 | 23 | 1126 | 2889 | 2 | 140 | 3031 | 4273 | 10528 | 6155 | 20956 |
| Baramandel, . | 768 | 45 | 56 | 869 | 3625 | 176 | 133 | 3934 | 7117 | 8593 | 4622 | 20332 |
| Chonger Kha, | 409 | 25 | 91 | 525 | 1847 | 47 | 157 | 2051 | 3767 | 7710 | 4290 | 15767 |
| Phalda Kote,. | 188 | 2 | 3 | 193 | 1314 | 16 | 1 | 1331 | 4134 | 3718 | 2445 | 10297 |
| Dhania Kote,. | 87 | 0 | 0 | 87 | 1152 | 0 | 0 | 1152 | 4368 | 4148 | 1744 | 10269 |
| Danpoor, .. | 342 | 5 | 71 | 418 | 835 | 8 | 109 | 952 | 571 | 2188 | 1433 | 4192 |
| Gangoli, .. | 435 | 37 | 53 | 525 | 1018 | 44 | 67 | 1129 | 237 | 2057 | 1076 | 3370 |
| Kota Chakata, | 310 | 0 | 2 | 312 | 2220 | 0 | 10 | 2230 | 7454 | 5221 | 3013 | 15688 |
| Katolí Marorí, | 0 | 4 | 125 | 129 | 0 | 18 | 699 | 717 | 1375 | 1595 | 1025 | 3965 |
| Total of Huzúr Tahsíl, | 3640 | 120 | 424 | 4184 | 14900 | 311 | 1316 | 16527 | 33296 | 45728 | 25803 | 104827 |
| Juar Bhote,.. | 153 | 8 | 1 | 162 | 887 | 78 | 4 | 969 | 164 | 773 | 450 | 1387 |
| Dharma, .. | 61 | 14 | 0 | 75 | 515 | 34 | 0 | 549 | 0 | 226 | 359 | 585 |
| Bhote, .. | 214 | 22 | 1 | 237 | 1402 | 112 | 4 | 1518 | 164 | 999 | 809 | 1972 |
| Kalí Kumaon, | 547 | 6 | 29 | 582 | 3471 | 26 | 215 | 3713 | 6066 | 4787 | 4668 | 15321 |
| Dhíaníron, : | 107 | 0 | 1 | 108 | 1108 | 0 | 8 | 1116 | 2419 | 1416 | 1679 | 5514 |
| Shor, .. | 217 | 0 | 8 | 225 | 1425 | 0 | 30 | 1455 | 858 | 3199 | 2517 | 6574 |
| Sira Askot, .. | 238 | 0 | 9 | 247 | 913 | 0 | 22 | 935 | 156 | 2151 | 1462 | 3760 |
| Tuhsíldarí Kali Kumaon, .. | 1109 | 6 | 47 | 1162 | 6920 | 26 | 275 | 7221 | 9499 | 11533 | 10326 | 31378 |
| Kumaon Pergunnahs, | 4963 | 148 | 472 | 5583 | 23222 | 449 | 1595 | 25266 | 12959 | 58280 | 36938 | 138177 |

# STATEMENT A.

SHEWING THE NUMBER OF VILLAGES, HOUSES, AND CATTLE, IN THE GERHWAL PERGUNNAHS.

| Names of Pergunnahs. | Detail of Villages | | | | Detail of Houses. | | | | Detail of Cattle. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Khalsa. | Rent-free to Individuals. | In Religious Assignments | Total of Villages. | In Khalsa Villages. | In rent-free Villages. | In assigned Villages. | Total of Houses. | Buffaloes. | Cows. | Oxen. | Total of Cattle. |
| Baraseo, .. | 569 | 8 | 47 | 624 | 3013 | 24 | 259 | 3306 | 1298 | 7051 | 4764 | 13113 |
| DewalGerh, | 178 | 4 | 22 | 204 | 1536 | 21 | 97 | 1654 | 355 | 4852 | 2767 | 7974 |
| Chound Kote, | 315 | 0 | 27 | 342 | 1690 | 0 | 151 | 1841 | 829 | 5172 | 2729 | 8729 |
| Nagpúr, .. | 351 | 7 | 221 | 579 | 2356 | 61 | 1547 | 4007 | 2093 | 15277 | 4749 | 22119 |
| Ganga Salun | 441 | 0 | 11 | 452 | 1831 | 0 | 54 | 1885 | 373 | 8964 | 2655 | 11992 |
| Puen Khanda, | 28 | 0 | 18 | 46 | 461 | 0 | 13 | 474 | 54 | 1168 | 682 | 1904 |
| Tehsildarí Srinagar | 1882 | 19 | 346 | 2247 | 10887 | 109 | 2171 | 13167 | 5002 | 42483 | 18346 | 65831 |
| Chandpúr, , | 338 | 0 | 15 | 353 | 1964 | 0 | 43 | 2007 | 958 | 6869 | 3159 | 10996 |
| Badhan, .. | 248 | 0 | 32 | 280 | 1234 | 0 | 113 | 1347 | 679 | 4055 | 2112 | 6846 |
| Talla Salan, | 265 | 0 | 19 | 284 | 1066 | 0 | 58 | 1124 | 556 | 7011 | 2299 | 9866 |
| Mulla Salan | 196 | 0 | 1 | 197 | 996 | 0 | 13 | 1009 | 457 | 3218 | 1829 | 5504 |
| Dassoli, .. | 0 | 8 | 88 | 96 | 0 | 43 | 606 | 649 | 584 | 2719 | 791 | 4094 |
| Tehsildari Chandpúr | 1047 | 8 | 155 | 1210 | 5260 | 43 | 833 | 6136 | 3234 | 23872 | 10200 | 37306 |
| Gerhwal Pergunnahs, | 2929 | 27 | 501 | 3457 | 16147 | 152 | 3004 | 19303 | 8236 | 66355 | 28546 | 103137 |
| Total Province, | 7902 | 175 | 973 | 9040 | 39369 | 601 | 4599 | 44569 | 51195 | 124635 | 103292 | 241314 |

# STATEMENT B.

SHEWING THE ABSTRACT DETAIL AND AMOUNT OF REVENUE FIXED BY THE GORKHA GOVERNMENT, FOR THE DISTRICT NOW FORMING THE PROVINCE OF KUMAON, IN THE SAMBAT YEAR 1868, CORRESPONDING WITH 1812.

| Names of Divisions. | Land Revenue. | Salami (or Nazarana,) | Gheekar (or Tax on Cattle. | Mujhari (or Tax on Dooms,) | Tundkur, (or Tax on Looms,) | Sonya Phagun, or Bhet on Festivals. | Adhanni Defturi, or Kanoongo allowances. | Sayer or Customs. | Tambakhan, Taksal, or mines and mint duties. | Khuersal, (or Kulh Mehals.) | Katbans, (or timbers and bamboos.) | Sayer, exclusive of Customs. | Asmani firmani, (or estimated fines and forfeitures. | Total Revenue in Gorkha Rupees. | Total in Furruckabad Kuldar Rupees. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kumaon, ... | 85525 | 2743 | 2252 | 621 | 50741 | 1360 | 4222 | 7500 | 2400 | 3200 | 1200 | 162 | 2500 | 164426 | |
| Gerhwal, .. | 82406 | 1147 | 0 | 454 | 1283 | 1495 | 1495 | 10900 | 2401 | 170 | 600 | 200 | 2000 | 104551 | |
| Total Province,.. | 167931 | 3890 | 2252 | 1075 | 52024 | 2855 | 5717 | 18400 | 4801 | 3370 | 1800 | 362 | 4500 | 268977 | |

# STATEMENT C.

EXHIBITING THE QUANTITY OF ARABLE LAND, CONTAINED IN THE PROVINCE, AGREEABLY TO THE RECORDED RUKBA, AS REDUCED BY ESTIMATES, TO ONE COMMON STANDARD.

| Names of Pergunnahs. | *Detail of Villages.* | | | | | *Present Nominal Rukba.* | | | | | *Nominal Rukba as reduced to Standard Bueces.* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Villages in Settlement. | Rent free. | Assigned to Temples. | Deserted. | Total. | Included in Settlement. | In rent-free Villages. | In assigned Villages. | In deserted Villages. | Total Rukba. | Settlement. | Rent-free. | Assigned. | Deserted. | Total. |
| Pali, ..... | 1101 | 2 | 23 | 29 | 1155 | 7967 | 17 | 295 | 484 | 8763 | 15934 | 34 | 590 | 968 | 17526 |
| Baramandel, | 968 | 45 | 56 | 8 | 877 | 7423 | 467 | 542 | 116 | 8584 | 7423 | 467 | 542 | 116 | 8548 |
| Chonger Kha, | 409 | 25 | 91 | 136 | 661 | 5485 | 253 | 622 | 1716 | 8076 | 5485 | 253 | 622 | 1716 | 8076 |
| Phalda Kote, | 188 | 2 | 3 | 0 | 193 | 2609 | 20 | 11 | 0 | 2640 | 5218 | 40 | 22 | 0 | 5280 |
| Dhania Kote, | 87 | 0 | 0 | 1 | 88 | 2272 | 0 | 0 | 14 | 2286 | 4544 | 0 | 0 | 28 | 4572 |
| Danpoor, ... | 342 | 5 | 71 | 73 | 491 | 3716 | 384 | 294 | 378 | 4772 | 3716 | 384 | 294 | 378 | 4772 |
| Gangoli, .... | 435 | 37 | 53 | 359 | 884 | 3127 | 208 | 203 | 1169 | 4707 | 3127 | 208 | 203 | 1169 | 4707 |
| Kota,..... | 310 | 0 | 2 | 10 | 322 | 11361 | 0 | 52 | 64 | 11447 | 16592 | 0 | 74 | 96 | 16762 |
| Kali Kumaon,.. | 547 | 6 | 29 | 81 | 663 | 11970 | 219 | 594 | 1158 | 13941 | 11970 | 219 | 594 | 1158 | 13941 |
| Dhianíron,.. | 107 | 0 | 1 | 5 | 113 | 1819 | 3 | 6 | 36 | 1864 | 1819 | 3 | 6 | 36 | 1864 |
| Shor, ..... | 217 | 0 | 8 | 139 | 364 | 9094 | 0 | 177 | 1769 | 11044 | 9094 | 0 | 177 | 1769 | 11044 |
| Sira, ..... | 238 | 0 | 9 | 161 | 408 | 5112 | 0 | 198 | 1398 | 6708 | 5112 | 0 | 198 | 1398 | 6708 |
| Juwar, ..... | 153 | 8 | 1 | 59 | 221 | 6624 | 507 | 21 | 917 | 8069 | 6624 | 507 | 21 | 917 | 8069 |
| Darma ..... | 61 | 14 | 0 | 76 | 151 | 6266 | 254 | 50 | 2939 | 9509 | 6266 | 254 | 50 | 2939 | 9509 |
| hatoli, .... | 0 | 4 | 125 | 0 | 129 | 0 | 36 | 1132 | 0 | 1168 | 0 | 72 | 0 | 2169 | 2336 |
| Kumaon, ... | 4961 | 148 | 472 | 1137 | 6720 | 84949 | 2368 | 4197 | 12158 | 103672 | 101924 | 2441 | 5557 | 12688 | 122610 |

# STATEMENT C.

EXHIBITING THE QUANTITY OF ARABLE LAND CONTAINED IN THE PROVINCE AGREEABLY TO THE RECORDED RUKBA AS REDUCED BY ESTIMATES TO ONE COMMON STANDARD.

| Names of Pergunnas. | *Villages.* | | | | | *Present Nominal Rukba in Joolas.* | | | | | *Nominal Rukba as reduced to Busees.* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Villages in Settlement. | Rent-free. | Assigned to Temples. | Deserted. | Total. | Included in Settlement. | In rent-free Villages. | In assigned Villages. | In deserted Villages. | Total. | Settlement. | Rent-free. | Assigned. | Deserted. | Total. |
| Baraseo, | 569 | 8 | 47 | 66 | 690 | 889 | 10 | 65 | 71 | 1035 | 11868 | 120 | 780 | 852 | 12420 |
| Chound Kote, | 315 | 0 | 27 | 32 | 374 | 431 | 0 | 16 | 29 | 476 | 5124 | 0 | 192 | 348 | 5712 |
| Dewal Gerh, | 178 | 4 | 22 | 163 | 357 | 447 | 8 | 26 | 160 | 641 | 5364 | 96 | 312 | 1920 | 7692 |
| Nagpúr, | 351 | 7 | 221 | 291 | 870 | 326 | 5 | 208 | 193 | 732 | 9312 | 60 | 2496 | 2316 | 8784 |
| Ganga Salun, | 441 | 0 | 11 | 61 | 513 | 616 | 0 | 8 | 106 | 730 | 7392 | 0 | 48 | 1272 | 8760 |
| Puen Khanda | 24 | 0 | 18 | 19 | 65 | 312 | 0 | 34 | 19 | 369 | 3744 | 0 | 256 | 228 | 4428 |
| Chandpúr, | 338 | 0 | 15 | 66 | 419 | 726 | 0 | 12 | 329 | 1067 | 8712 | 0 | 144 | 3943 | 12804 |
| Bhadhan, | 248 | 0 | 32 | 48 | 328 | 506 | 0 | 40 | 503 | 1039 | 6072 | 0 | 480 | 6036 | 12468 |
| Tulla Salan, | 265 | 0 | 19 | 130 | 414 | 344 | 0 | 12 | 204 | 560 | 4128 | 0 | 144 | 2448 | 6720 |
| Mulla Salan, | 196 | 0 | 1 | 7 | 204 | 199 | 0 | 2 | 68 | 269 | 2388 | 0 | 24 | 816 | 3228 |
| | 0 | 8 | 88 | 23 | 119 | 0 | 17 | 334 | 92 | 443 | 0 | 204 | 4008 | 1104 | 5316 |
| Gerhwal, | 2929 | 27 | 501 | 906 | 4363 | 4786 | 40 | 761 | 1774 | 7367 | 57432 | 480 | 9132 | 21288 | 88332 |
| Total Province, | 7892 | 175 | 973 | 2043 | 11083 | 0 | 0 | 0 | 0 | 0 | 159356 | 2921 | 14689 | 33976 | 210942 |

# STATEMENT D.

EXHIBITING THE PERGUNNAH LAND ASSESSMENT FOR EACH YEAR FROM THE CONQUEST, AND ALSO FOR THE LAST GORKHA SETTLEMENT.

| NAMES OF PERGUNNAHS. | No. of Villages. | Nominal Rukba in standard Busees. | Jumma of last Gorkha Settlement in 1868. | Jumma of 1st Settlement in 1872. | Jumma of 2nd Settlement in 1873. | Jumma of 3rd Settlement in 1874. | Jumma of 4th Settlement in 1877. | Jumma of present year in 1879. | Present number of Leases. |
|---|---|---|---|---|---|---|---|---|---|
| Palí, .. .... | 1101 | 15934 | 27500 | 21075 | 21179 | 25057 | 30024 | 31294 | 1282 |
| Baramandel, .. .... | 768 | 7223 | 14873 | 9496 | 10250 | 11113 | 14557 | 14967 | 716 |
| Chonger Kha, .. .... | 409 | 5485 | 6812 | 4119 | 4531 | 5098 | 6749 | 6969 | 429 |
| Phalda Kote, .. .... | 188 | 5218 | 9254 | 6432 | 6665 | 7181 | 7686 | 7754 | 171 |
| Dhania Kote, .. .... | 87 | 4544 | 9075 | 4922 | 5700 | 6518 | 7332 | 7394 | 116 |
| Danpoor, .. .... | 342 | 3716 | 6313 | 3489 | 3888 | 4170 | 4356 | 4478 | 251 |
| Gangolí, .... .... | 435 | 3127 | 5547 | 2702 | 3301 | 3307 | 3876 | 3973 | 406 |
| Kota, .. .... | 310 | 16392 | 8045 | 5196 | 5900 | 6372 | 8079 | 9611 | 223 |
| Kalí Kumaon, .. .... | 547 | 11970 | 17235 | 8696 | 9477 | 10387 | 12022 | 12400 | 610 |
| Dhíaníron, .. .... | 107 | 1819 | 7885 | 4374 | 4578 | 5171 | 5596 | 6000 | 134 |
| Shor, .. .... | 217 | 9094 | 5684 | 3501 | 4001 | 4574 | 5487 | 5515 | 356 |
| Sira, .. .... | 238 | 5112 | 5346 | 2655 | 3076 | 3301 | 3755 | 3774 | 177 |
| Juwar, .. .... | 153 | 6624 | 12890 | 5001 | 5633 | 5313 | 2546 | 2779 | 103 |
| Darma, .. .... | 61 | 6266 | 13405 | 4956 | 5470 | 4816 | 1181 | 1225 | 35 |
| Kumaon, .. .... | 4963 | 101924 | 142864 | 86071 | 93722 | 102385 | 113246 | 118153 | 5009 |
| Baraseo, .. .... | 569 | 11868 | 12018 | 4577 | 6055 | 6670 | 7972 | 8002 | 450 |
| Chound Kote, .. .... | 315 | 5124 | 6025 | 3069 | 3629 | 3933 | 4526 | 4559 | 254 |
| Dewal Gerh, .. .... | 178 | 5364 | 1957 | 1334 | 1790 | 2068 | 2399 | 2503 | 159 |
| Nagpúr, .. .... | 351 | 3912 | 11104 | 3033 | 3900 | 4305 | 5214 | 5355 | 268 |
| Ganga Salun, .. .... | 441 | 9392 | 11634 | 5384 | 5891 | 6454 | 7687 | 7730 | 439 |
| Puen Khanda, .. .... | 28 | 3744 | 4700 | 1750 | 1750 | 1750 | 1039 | 1040 | 29 |
| Chandpúr, .. .... | 338 | 8712 | 20826 | 7763 | 8744 | 8765 | 10676 | 10938 | 348 |
| Bhadan, .. .... | 248 | 6072 | 9902 | 3612 | 4305 | 4721 | 5660 | 5920 | 338 |
| Tulla Salan, .. .... | 265 | 4128 | 5960 | 3147 | 3586 | 3983 | 4922 | 6195 | 354 |
| Mulla Salan, .. .... | 196 | 2388 | 7132 | 4037 | 4574 | 5172 | 5753 | 6269 | 235 |
| Gerhwal, .. .... | 2929 | 57432 | 91258 | 37506 | 44224 | 47821 | 56148 | 58511 | 2874 |
| Total Province, .... | 7892 | 159356 | 241122 | 123577 | 137946 | 150206 | 169394 | 176664 | 7883 |

# COMPARATIVE STATEMENT OF THE TOTAL RECEIPTS,

IN THE YEARS 1815-16 AND 1822-23.

| | Land Revenue. | Cession Timbers and Kuth. | Abkaree and Drugs. | Stamps. | Customs, including Bhote Duties. | Profit and Loss | Total. | Increase. |
|---|---|---|---|---|---|---|---|---|
| 1815-16 | 116577 | 1100 | 60 | Not introduced. | 14016 | 970 | 132723 | 53403 |
| 1822-23 | 176664 | 6302 | 500 | 2100 | Abolished. | 660 | 186126 | |

# COMPARATIVE STATEMENT OF EXPENSE

OF THE NATIVE ESTABLISHMENTS IN 1815-16 AND 1822-23.

| | Sudder Establishment. | Revenue Establishment. | Police Establishment. | Total Annual Establishment. | Decrease. |
|---|---|---|---|---|---|
| 1815-16 | 9840 | 20216 | 10464 | 40520 | 0 |
| 1822-23 | 7488 | 9432 | 4344 | 21264 | 19256 |

# SUPPLEMENTARY STATEMENT,

EXHIBITING THE RESULT OF THE SURVEY OF THE KHALSA LANDS AND OF THE QUINQUENNIAL SETTLEMENT FORMED IN 1824.

| Names of Pergunnahs. | *Rukba.* Bisis in Cultivation. | Bisis Waste. | Bisis in Hek Pudhan. | Jumma of the last Triennial Settlement. | Jumma of the Quinquennial Settlement. |
|---|---|---|---|---|---|
| Baramandel, .. .. .. .. .. .... | 23805 | 4744 | 1829 | 31293 | 32929 |
| Palí Pachaon, .. .. .. .. .. .. | 15700 | 2062 | 974 | 14976 | 17341 |
| Chonger Kha, .. .. .. .. .. .... | 11761 | 7678 | 1377 | 6969 | 8164 |
| Phalda Kote, .. .. .. .. .. .. | 9888 | 2695 | 886 | 7795 | 7903 |
| Dhania Kote, .. .. .. .. .. .... | 4415 | 769 | 337 | 4481 | 4913 |
| Kota Chakata, .. .. .. .. .. .. | 36034 | 51330 | 306 | 9614 | 13345 |
| Ramgurh, .. .. .. .. .. .... | 1134 | 287 | 90 | 2913 | 2124 |
| Danpoor, .. .. .. .. .. .. .. | 5475 | 5336 | 664 | 4478 | 5537 |
| Gangoli, .. .. .. .. .. .. .... | 4277 | 3197 | 446 | 2731 | 3868 |
| Kalí Kumaon, .. .. .. .. .. .. | 26555 | 51615 | 2168 | 12559 | 15053 |
| Dhíaníron, .. .. .. .. .. .... | 6564 | 12160 | 346 | 5999 | 7067 |
| Shor, .. .. .. .. .. .. .. .. | 7740 | 4804 | 715 | 5527 | 6176 |
| Sira Kote, .. .. .. .. .. .... | 8176 | 4686 | 673 | 5025 | 4660 |
| Total Kumaon Pergunnahs, .. .. .. | 161523 | 151378 | 20815 | 114315 | 129080 |
| Baraseo, .. .. .. .. .. .. .. | 6843 | 7510 | 0 | 8017 | 10053 |
| Chound Kote, .. .. .. .. .. .... | 2588 | 1916 | 0 | 4563 | 5566 |
| Dewal Gerh, .. .. .. .. .. .. | 2281 | 2747 | 0 | 2504 | 3113 |
| Nagpúr, .. .. .. .. .. .. .... | 4791 | 2831 | 0 | 5354 | 6272 |
| Ganga Salan, .. .. .. .. .. .. | 4220 | 3815 | 0 | 7736 | 8922 |
| Chandpúr, .. .. .. .. .. .... | 10518 | 3970 | 0 | 10938 | 12514 |
| Badhan, .. .. .. .. .. .. .. | 7470 | 4880 | 0 | 5919 | 3697 |
| Mulla Salun, .. .. .. .. .. .... | 3251 | 707 | 0 | 6002 | 6593 |
| Tulla Salan, .. .. .. .. .. .. | 4239 | 1755 | 0 | 6461 | 7935 |
| Total Gerhwal Pergunnahs, .. .. .... | 46205 | 30135 | 0 | 57498 | 66366 |
| Bhot Mehala, .. .. .. .. .. .. | 7582 | 5760 | 675 | 5042 | 5812 |
| Total Province, .. .. .. .. .. .. | 215310 | 187273 | 11490 | 176856 | 201258 |

# STATISTICAL REPORT

ON THE

# BHOTEA MEHALS

OF

# KUMAON,

BY

GEORGE WILLIAM TRAILL, ESQ.

*Commissioner for the Affairs of Kumaon.*

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The name of *Bhot* is here, properly speaking, applicable only to the *Himalaya* ranges, which once formed a part of the adjacent *Tibet* province of *Bhot*. Since the annexation of that tract to the states of *Kumaon* and *Gerhwal*, a portion of the neighbouring pergunnah has been incorporated with the several *Bhot* mehals. These villages have mostly continued in the occupation of the Hindu proprietors, and as they offer no peculiarities in regard to produce or management, no further notice of them will be taken in the present report, which will, consequently, refer solely to *Bhot* in its restricted sense.

The northern boundary, as recognised by the *Tibet* Government, extends to the commencement of the table land: for the southern boundary the opposite base of the *Himalaya* range may be assigned. With these limits, *Bhot* may be estimated as forming one-third of the province. The southern line of demarcation is, by no means, continued or well defined, intervals between the snowy peak presenting themselves in the neighbourhood of the principal rivers; the most considerable of these occurs at the foot of the *Nítí* pass, where the line of perpetual snow recedes full a quarter of a degree to the north.

At the intervals in question, are found the mouths of the *Tartar* passes, five in number, and commencing from the west, as follows:

| | |
|---|---|
| *Mana*, on the *Saraswati*, | Branches of the *Ganges*. |
| *Niti*, on the *Duli*, .... | |
| *Juwar*, on the *Gauri*, .. | Branches of the *Sarda* or *Gogra*. |
| *Darma*, on the *Dhouli*, .. | |
| *Byanse*, on the *Kali*, .. | |

The productive and habitable portion of *Bhot*, is confined to the passes and their immediate neighbourhood, and does not exceed a sixteenth of its total extent; the remainder consists of snow or barren rocks.

The minimum elevation in the several passes may be taken at six thousand feet above the sea, while at their crests, the height varies from above twenty thousand feet on *Mana*, to a about fifteen thousand feet on *Byanse*. The altitudes of the peaks, have been calculated by Captain Webb: the maximum appears to be above twenty five thousand feet.*

The paths to the passes, continue along the upper part of the rivers abovementioned, till near the crest of the ridge, which is crossed in those parts offering least difficulty in the ascent, and it is here only that snow is not met with during the season of intercourse. Roads of communication through the *Himalaya* unite the passes from east to west, but these are passable, during a few days only in each year, and are considered at all times as dangerous by the *Bhoteas* themselves. Roads of this description formerly used, are now impracticable, owing to the increase of snow. The interior of the *Himalaya*, except at the passes and paths in question, is inaccessible, and appears to be daily becoming more so from the gradual extension of the zone of perpetual snow. The *Bhoteas* bear universal testimony to the fact of such extension and point out ridges now never free from snow, which, within the memory of man, were clothed with forest, and afforded periodical pastures for sheep: they even state, that the avalanches, detached from the lofty peaks, occasionally present pieces of wood frozen in their centre.

The roads in the passes are carried as near as possible to the margin of the river, and only deviate from thence as a last

* *Note*—The height of the peak Namda Devi, is, by Captain Webb's operations 25,669 feet: ditto ditto by Major Hodgson and Captain Herbert, 25,749; ditto mean height 25,709.

resource, where a rocky precipice, impassable by other means, presents itself. Obstructions of this nature, which are here frequent, are, if feasible, avoided by means of bridges; as they are surmounted by the aid of a scaffolding formed of spars, and supported by joists, fastened horizontally in the face of the rock, this expedient is only pursued where natural crevices or ledges are available. Where a passage over the obstruction is inevitable, a considerable detour is usually necessary for that purpose, and the road, in these cases, is always difficult, and sometimes attended with danger.

The bridges are of the *Sanga* kind, and being intended for the passage of laden animals, they are made with greater attention and better materials, than are commonly given by the zemindars of other parts of the province, to such erections. In the early part of the season, natural bridges of snow, formed from the accumulation of avalanches, abound, more particularly in the upper part of the ghâts, where the stream is invisible during much of its course.

The frequency of mountain slips, *paira*, renders the preservation of the road an object of constant toil to the *Bhoteas*. By accidents of this nature, the course of the river is sometimes completely blocked up for two or three successive days, and every part of the path-way, within its reach, is swept away by the accumulated torrent, not an atom of soil being left on which to found a new road; on forming the latter a deviation from the old line and level becomes necessary in consequence.

The passes, taking their whole extent, may be said to be barely practicable. The *Bhoteas* travel through them without difficulty under burthens, but natives of other quarters of the hills are compelled, in many places, to proceed with the utmost caution, even without loads; at such points animals of every description require the assistance of manual labour; the larger kinds, such as ponies and cattle, are raised or lowered, according to the nature of the obstruction, by means of slings passed round their bodies.

Comparatively speaking, the *Niti* is considered as the best, the *Juwar* as the most difficult pass in this province. A tradition is here current, that when *Bhot* was originally conquered by the *Kumaon* power, a road was formed by the invading army to facilitate its progress through the ghât; this operation, the commander (Raja Baz Bahadur Chand) is said to have personally

superintended, paying a rupee with his own hand, for every cup full of earth brought to the spot. This tale doubtless partakes of the usual style of Eastern hyperbole, but it is deprived of much of its apparent exaggeration, on inspection of the country in that quarter. During the rainy season, to insecurity under foot must be added insecurity over head. Fragments of rock *gull*, and avalanches, *huin gull*, are continually detached from the impending cliffs, and annually occasion fatal accidents in each of the ghâts.

The *Bhot* mehals present only fifty-nine villages, within the ghâts, distributed as undermentioned; comparatively speaking, these are of good size, the village of *Melím*, alone (in the *Juwar* pass,) contains near two hundred houses, a number greater than is to be found in any other village in the province.

| | *No. of Villages.* | *No. of Houses.* |
|---|---|---|
| Mana,.... .... .... .... | 3 | 125 |
| Níti, .... .... .... .... | 10 | 219 |
| Juwar, .. ..... .... .... | 13 | 455 |
| Darma, .. ..... .... ..... | 24 | 342 |
| Byanse, .. .... .... .... | 9 | 184 |
| Total, .... | 59 | 1325 |

The houses are commonly large, consisting of two or more stories, substantially built of stone, with sloping roofs of slate, planks, or gravel beat smooth; where this last material is made use of, a previous layer of birch bark is requisite to render the roof water-proof. In the choice of a site for building, security from avalanches forms the primary consideration, but even the greatest foresight sometimes proves vain. In 1822, more than twenty houses were swept away by an avalanche in the village of *Mana;* although it is, at least, two miles distant from the peak whence the destructive mass must have proceeded. This catastrophe took place, fortunately, during the periodical absence of the inhabitants.

No complete enumeration has been made of the population in *Bhot*, but sufficient data exist for computing the average of residents in each house to exceed seven. The *Bhoteas* are, generally, in good circumstances, and many individuals possess one or more slaves or domestics, who, with their families, live under

the same roof with their masters. This estimate will give a total of near ten thousand inhabitants, of whom, probably, nine-tenths are *Bhoteas*, and one-tenth natives of other parts, chiefly artificers of low caste. The *Bhoteas*, who reside permanently in the villages, at the mouth of the *ghát*, and not included in the foregoing, may be estimated at about five hundred. Prejudices in regard to caste, joined to the jealousy of the *Bhoteas* for their commerical monopoly, prevent the permanent establishment of *Hiñdus* within the *ghâts*; by the latter cause also, further emigrations from *Tibet* are impeded.

The following brief view of the climate must be understood as solely applicable to the habitable parts; the state of temperature in the elevated portion contiguous to, or within the zone of, perpetual congelation, will only be cursorily noticed, as influencing the productions of the soil.

In the absence of a regular series of observations general remarks only can be offered. During full half the year, the surface is wholly covered with snow; this begins to be about the end of September, and continues to accumulate to the beginning of April. Thaw then becomes predominant, though partial falls occur till even late in May. In open and level situations, unaffected by drifts or avalanches, the bed of snow which at its maximum depth, varies in different years, from six to twelve feet, is wholly dissipated by the first week in June; in ravines and hollows, it does not entirely disappear before the middle of July. The seasons of spring, summer and autumn, are comprised within five months, from May to September inclusive; but an interval of four months, without a fall of snow, is rare. During these seasons, the thermometer (Fahrenheit,) at sunrise ranges from 40° to 55°, and at mid-day, from 65° to 75° in the shade, and from 90° to 110° in the sun.

Towards the middle of August, the temperature becomes precarious and liable to sudden changes, consequent on the state of weather which may prevail on the surrounding heights; falls of snow, in that quarter, producing slight frosts in the neighbouring valleys by such occurrences the ripening crops are sometimes wholly burnt up. The *Bhoteas* firmly believe that falls of snow may be induced by concussions in the air. The use of fire-arms, musical instruments, and, in *Darma*, even the scrubbing of metal vessels, are prohibited in the neighbourhood of villages.

Rain is here neither heavy nor frequent; there is, however, a constant succession of dense clouds and mists.

The soil is commonly black and contains much decayed vegetable matter washed down by the melted snows; it would however appear to require large supplies of manure to render it productive. The surface is every where extremely stony.

After the preceding notice of the climate, it is almost superfluous to mention, that only one crop is obtained in each year, the agricultural products are *phapar* and *ugal*, two varieties of buck wheat, *uä jao*, and *jao*, beardless and common barley. Wheat and *marsa*, a species of amaranthus, are partially cultivated. In the richest and best watered lands, barley yields a return of from twenty to forty fold, according as the temperature may be affected by the proximity of snow. In the poor lands, which may not be capable of irrigation, from three to six for one, is the average produce. The *phapar*, which does not require irrigation, gives from thirty to forty fold.

Both wheat and *marsa* are uncertain, the crop in many seasons never reaching maturity, and in the most favorable years being far from abundant. *Phapar* would appear to be indigenous, as it is to be found wild on all high mountains.

The operations and implements of husbandry present no novelties: the ploughing commences as early as the melting of the snow will admit, and the sowing is commonly completed by the first week in June. By the middle of September, the crop is ready for the sickle: to this period the irrigation of the wheat and barley is continued, the streams of melted snow being directed for that purpose, whenever available. Severe winters, attended with heavy snows, prove more or less injurious in their consequences to the succeeding crops. The *Bhot* villages are all situated on the northern side of the great chain of *Himalaya* peaks, and are all, in some degree, subject to the influence of its snows, and of its shade. By any unusual accumulation of snow on the summit, the inferior bed is forced down, and with it, the influence of, if not the line of perpetual congelation itself, descends: those villages which are contiguous to the peaks, and are unsheltered by intervening heights, suffer severely from such occurrences, as it sometimes requires the heat of more than one summer to throw back the snow to its former level. The village of *Laspa*, in the *Juwar* ghât has been rendered wholly unproductive during two years, by an accident of this kind. This village lies on the northern base of the great peak of *Nanda Devi*, but is the southern-most and least elevated within the ghât: the peculiarities of its si-

tuation as the link of connection between *Hindustan* and *Tartary*, and the proximity of a still more sterile country in the latter, could alone induce cultivation in a tract where production is always precarious and never abundant.

Turnips and leeks are the only vegetables raised in *Bhot*, but many useful roots and herbs are spontaneously produced, among these are, the wild garlic, celery, rhubarb, frankincense (*mari* or *balchar*) *laljari*, *chora*, *bhotkes* and *katki*, objects of export to Hindustan. The rhubarb is somewhat inferior in its color and properties to the Turkey, and the *Bhoteas* do not take it inwardly, though they apply the powder to wounds and bruises: it is also used as an ingredient in the formation of a red dye, in conjunction with *manjith* and *potash*. The *manjith* is here extremely abundant; but, except for local consumption, is in no demand.

The indigenous fruits are gooseberries, currants, red and white, raspberries, strawberries, and pears, none of which receive culture. Apricots and peaches have been partially introduced by the *Bhoteas*, but attain neither size or flavor. Walnuts and hazelnuts are common in the low grounds; the nut of the former contains little or no kernel, the latter is small, but well tasted.

The forests in the southern and least elevated parts of the ghât, offer many varieties of tree common to other parts of the province; the most flourishing of these are the oaks and pines of different kinds. Specimens of the *deodar*, pine, and of the *suryi*, or arbor vitæ, with trunks of from twenty to twenty-five feet in circumference, are by no means uncommon.

With the increase of elevation, a gradual change in the composition of the forest takes place: to red rhododendrons, *deodars*, and oaks, succeed the *raissala* or king pine, *thuners*, or yew, *naspati** or white rhododendron, and *bindhara*, or juniper, while above all is found the *bhoj* or birch, on the very verge of perpetual snow.

The bark of this latter is highly useful, as a substitute for paper, and for other domestic purposes, and is exported in considerable quantities to the plains. The sprigs of the *bindhara* (juniper) and of the *suryi* (arbor vitæ,) are used in the prepa-

* Naspati, so called from the leaf being used dry, and pounded as snuff.

ration of yeast, *balma*. The most common shrubs are the *parpinja* (ground cypress,) dog roses, red and white, and sweet briar.

Flowers are plentiful, more particularly the Iris and Anemone.

The domestic animals are horned cattle, ponies, sheep, goats, dogs, and cats.

The horned cattle are of three kinds. 1st, the common hill black cattle, of which a few are carried up for the supply of milk, and of agricultural labor. 2ndly, the *sura gai*, or *yak*, imported from Tartary, chiefly for the purpose of carriage, for which it is well adapted by its strength; its employment is, however, restricted to the *Himalaya*, owing to its extreme susceptibility of heat and moisture. The third kind consists of mules, bred between the two foregoing species. Where the sire is a *yak*, the produce is called *jabbu*, and in the opposite cross, it is called *garjo*. These breed freely together, or with the parent stock; but in the former case, the race degenerates: in the latter, the produce resumes the character of the parent, into which it may be re-bred. Of these mules, the *jabbu* is the most valuable, being found to possess the good qualities of both parents in an essential degree. The value of the *yak* and of the *jabbu* is nearly the same—from fifteen to thirty rupees for each animal.

Sheep and goats are numerous, and form the principal means of transport; they are not, however, bred to any great extent by the *Bhoteas*, but are purchased by them in the villages, along the south base of the *Himalaya*, the animals of that quarter alone, being found capable of standing the changes of climate and the unceasing labor to which their employment subjects them. The pasture on the ranges adjoining to the *Himalaya*, is found in a peculiar degree nutritive to sheep; on the melting of the winter snows, towards the end of March, these mountains which, though lofty, are by no means precipitous, become covered with verdure, and are then resorted to by the flocks of the neighbourhood. A few days are said to suffice to restore the animals to condition, though ever so much reduced by the fasts and rigors of the preceding winter. The grass of these pastures is distinguished by the shepherds, under a particular name, and has the universal reputation of being inexhaustible, the growth during the night being said to compensate fully for the consumption of the day. The flocks

continue here till the commencement of the rains, when they are driven to less rich pastures on the more southern ridges; with the setting in of winter, they return to the villages. During this season, the sheep are compelled to browse with the goats; branches, chiefly of the oak, being cut down for them: the use of *bhúsí* is here unknown, though the animals are turned into the stubble fields; neither is hay, though stored in small quantities for cattle, ever given to sheep. In some parts of *Gerhwal*, the leaves of trees, particularly of the mulberry, are dried and stocked in autumn, to serve as fodder for the winter. The *kirnmu* or mulberry, is there, consequently, much valued, and the property in its foliage forms an object of sale and purchase, distinct from the land.

While on the mountains, the flocks are secured during the night in folds; these are situated along the ridges, and being intended for annual resort, are substantially built with layers of dry stone: the wall is raised to nine or ten feet, so as to exclude beasts of prey: only a single door of entrance is left, and that of the smallest dimensions, with the same view, as the leopards, when the door is high, break it down without difficulty, by leaping against it. In the interior, sloping *ch'happers* are erected along one or more sides, according to the number of animals to be sheltered. Every village has commonly its separate fold at each of the periodical pastures; the ridges in question, consequently, exhibit the appearance of a chain of fortified posts, the resemblance being increased by the individual sites of these erections, which, with a view to facility of draining, are placed on the summits of rising grounds.

The wool is of good quality, and is wholly consumed on the spot, in the manufacture of blankets.

The sheep carries a burthen of from five to eight seers, and the goat from six to twelve seers: all dry commodities, the weight of which can be equally apportioned on both sides, may be conveyed on these animals. Grain, borax, salt, *gúr* and such articles, are sewn up in small saddle bags, called *karbik*, made of worsted, and cased with leather; these are laid across the back, and are secured merely by a crupper and a breast band. Wool and other products of the same description are formed into similar packages, and loaded in the same mode, but without bags. Laden sheep on short journeys, can accomplish seven or eight miles a day; but for a continuance, cannot keep up a greater rate than five miles; they travel only for a short time in the morning and in the evening, during the heat of the

day, they are unloaded and suffered to graze. Goats are chosen, from their superior boldness and activity, as leaders of the flock, and are furnished with bells.

The common diseases of sheep, such as rót, mange, small pox, &c. are all here prevalent, and in some years, extremely destructive; the goats are further liable, in wet weather, to a species of *barsati* called *khurí*, which frequently terminates in the loss of the hoófs.

The casualties are further augmented by exposure and fatigue, by accidents, and by wild beasts; and as the females—even those with young at their feet—are not exempted from labor, it can be a matter of no surprise, that the *Bhotea* annually finds himself called on to make a fresh outlay for keeping up his stock. Many of the *Juwari Bhoteas* possess flocks of *Tibet* sheep; this is a powerful long-legged animal, resembling the Iceland ram, and similarly subject to produce an additional number of horns, individuals being sometimes found with as many as five horns. This sheep carries from fifteen to twenty seers, its wool is also of a superior kind, known in commerce under the name of *bayengi*, and the price is, at the same time, not greater than that of the common hill sheep; these considerations would lead to its exclusive introduction were it found capable of enduring the change of climate, but failure in this latter point, restricts its employment, as in the *yak* to the *Himalaya* and its native country. These flocks are, in consequence, kept by their owners at some adjoining village in *Tibet*, and are brought into use on the opening of the upper part of the ghât. The goats consumed for food and sacrifices, are also procured from *Tibet*; they are of the description which yields the shawl wool, and are to be purchased there at from twelve annas to two rupees each.

The horses in use here, are small stout ponies of *Tartar* breed, called *gunts*: these animals are remarkably sure-footed, and consequently, well adapted for the rocky and precipitous roads of the hills; they have the further merit of not requiring shoes, and are invariably ridden unshod. The price has, of late years, been much enhanced by the demand of European gentlemen; a poney of good qualifications not being procurable for less than from sixty to one hundred rupees, near treble the former rates.

Dogs are of two species, the *Tibet*, a large animal with a shaggy coat, kept for guarding sheep against the depredations

of wild beasts; and, the hill *shikari*, or hunting dog, which does not differ in appearance from the common pariah dog of the plains, but is valuable from his qualifications for the chase. They are commonly used singly, or at most in pairs, and from their perseverance and goodness of nose, are generally successful in their pursuit of game. The deer, when raised, is driven by them down into the glen, where a part of the hunters lie in wait, armed with spears or matchlocks. The *Bhoteas* are particularly fond of this sport, and pay comparatively large prices for dogs of good character. To improve the breed, they sometimes cross the *shikari* dog with the *bownsa* or *koya*, (wild-dog) caught young and reared with that view. This animal cannot be made available for hunting, as it seizes indiscriminately on every animal, whether wild or domestic, which comes in view.

Dogs of the *Tibet* breed are subject to hydrophobia: the treatment employed by the *Bhoteas* in cases of bites from animals in that state is simple and said to be generally efficacious: the part bitten is immediately subjected to the operation of burning, either by *guls*, or by a red hot iron, and a ligature is at the same time tied above the wound. For the space of fifteen days, the patient is debarred from the use of salt, spices, and heating food, and for the same period is daily magnetized by some skilful adept. The efficacy of the treatment depends on the actual cautery. The magnetism is not likely to be of much use. Of the success of this system of treatment, an instance fell under my own observation, in which not a shadow of doubt could exist of the rabidness of the animal by which the bite was inflicted.

The wild animals peculiar to *Bhot* are—

The *barjí*, or tawny bear, said to be white in winter. This animal exceeds the common black species in size, and is carniverous. *Bharel*, wild sheep, found only in the loftiest parts of the *Himalaya*, its size is that of the hill ram, color grey, with black points, hair thick and wiry, horns remarkably large and heavy, but curled as in the common ram. Vulgar fame represents this animal as falling, ultimately, a victim to the weight of his horns, being rendered thereby incapable of moving. *Kastúrí*, musk deer, requires no description; it abounds along the base of the *Himalaya*, where it is in a great measure secured from the pursuit of hunters by the difficulties of the country; but for this circumstance, the value of its produce would, probably, have long since led to its extermination. The

quantity and quality of the musk, are supposed to depend on the animal not being wounded, previous to the excision of the bag. Recourse is, consequently, very rarely had to fire-arms for its destruction. Pit-falls and snares are the means commonly resorted to for this purpose. In the latter mode, a fence of thick bushes is carried along the face of the mountain, a few small openings being left at distant intervals: in these are set the snares, and the animals are caught when descending at night to feed. A few are occasionally run down by dogs. Musk sells on the spot at from 8 to 12 rupees the tola. The number of deer killed in a season seldom, probably, amounts to a hundred, though, from the impositions practised in the sale of this article, full double that number of musk bags, exclusive of those imported from Tartary, are annually disposed of in this province. "*Bhía,*" marmot, a small brown kind, numerous in the upper parts of the ghâts, "*kukar,*" ferret, small, of an orange color, abounds in the villages, where it burrows in the walls of the houses: zeal in destroying rats secures to it the protection of the inhabitants. The rats are numerous; they offer the peculiarity of tails not exceeding half an inch in length. Most of the animals here enumerated have the reputation, as noticed in the case of the "*burji,*" of assuming, in winter, the appearance of the surrounding snow. The inaccessibility of the interior during that season, renders the ascertainment of this fact difficult.

The birds peculiar to *Bhot* consist of the—

Falcon and hawk, which breed on the southern ranges; these birds once formed an article of profitable export to Hindustan, but the demand is now trifling. They are caught in decoys called "*kothas,*" which are formed by a wall of netting erected on three sides, the fourth side and the top being left open; on this side the fowler lies concealed and by suddenly emerging when the hawk stoops to seize the bait, drives it in rising against the nets. The bait used is commonly a pigeon. The spots adapted for these "*kothas,*" and at the same time the resort of the hawks, are far from numerous, they are all situated on high and open ridges, far removed from the villages.

"*Hiún Wál,*" (bird of snow) the Ptarmigan.

"*Mukao,*" wild pigeon, mottled black and white.

"*Kyang,*" cornish chough, easily known from the common jackdaw, by its bright scarlet bill and legs. During the sum-

mer season, many of the common species of birds, large and small, migrate thither.

Neither fish nor reptiles of any kind exist.

Insects are far from abundant, although they swarm along the contiguous ranges.

The "*bhaunr*," or wild bee, which builds its nest in the southern parts of the *Himalaya*, has been already noticed.

Granite and quartz appear to be the prevailing descriptions of rock. The only minerals yet discovered are iron, sulphur, and yellow arsenic. The ore of the former abounds, but is used only for red coloring matter; the second is found in two or three hot springs at the mouth of the *Juwár* pass, but not in sufficient quantity to repay the labor of working for. The yellow arsenic is dug for in two or three places within the *Darma* and *Juwár* ghâts, but the aggregate produce is trifling.

Rock crystal is common, and specimens of considerable magnitude are occasionally procured. Fossil bones and organic remains exist in the most elevated parts of the ghâts. The former here called *Bíjli Har*, lightning bones, are chiefly found at the crest of the *Nítí* pass: the latter, called *Chakar Patar*, from its resemblance to a wheel, is procured in a ravine on the northern face of the *Mana* pass. In both instances, the elevation may be assumed at seventeen thousand feet above the sea.

Hot springs are numerous throughout the *Himalaya* chain, the temperature is found nearly the same in all, from 130° to 138° of Fahrenheit. No volcano is positively known to exist, but there are grounds for suspecting that the *Nanda Devi* peak contains something of the kind; the *Bhoteas* and natives of the neighbouring districts bear unanimous testimony to the occasional appearance of smoke on its summit: this is attributed by them to the actual residence of a deity, and has, accordingly, invested that peak with particular sanctity. A religious *méla* is held every twelfth year, at the highest accessible point, which is, however, about a mile from the summit: further progress is rendered impossible by a wall of perpendicular ice. The dangers and difficulties incurred by the pilgrims are represented as most appalling, and of the many hundreds who start at each successive period, not fifty find courage to complete the enterprise. Under these circumstances, it is scarcely possible

that the question of a crater can be ever decided by actual inspection. It is but just to add, that the extreme altitude of this peak (already noticed) joined to its monolithic appearance, might, independent of any other considerations, have rendered it sacred in Hindu Mythology.

Personal appearance, language, religion, customs, and tradition, all unite in pointing the origin of the present inhabitants to the adjoining Tartar province of *Tibet*.

In the *Mana*, *Níti*, *Juwar*, and *Byanse* passes, the principal *Bhoteas* still trace the emigration of their individual ancestors from some one of the villages or towns in that quarter. The colonization of these ghâts, would not appear to have taken place simultaneously throughout their extent: the first body of emigrants established itself in the villages at the mouth of the ghât from which the Hindu occupants were forcibly driven, the remaining villages were settled by succeeding adventurers at different intervals, and migration continued to be directed thither till the final dismemberment of the *Himalaya* chain from *Tibet*. The intimate intercourse which has continued to subsist with the mother country since that event, has prevented a variation in language, and the dialect spoken in those ghâts, is strictly that of the adjoining Tartar tribe.

These observations do not apply to the *Darma ghât*: its inhabitants though equally of Tartar origin, are traditionally derived from a different race, and their settlement is traced through the circuitous route of Hindustan. They are here considered as the descendants of a body of Mongal Tartars, which was left to secure possession of *Kumaon* after its subjection to TIMUR. This force, thinned by disease and the sword, ultimately retreated to the *Darma* pass, and there formed a permanent establishment.

The historics of TIMUR, mention the subjugation of these hills by one of his *Atabegs*, a fact which is also confirmed by the local records: these consist of little more than an enumeration of former Rajas, with the duration of their respective reigns; they, however, note an interregnum of about twenty years, during which the Mogul sway continued. Vestiges of this race are still found in the centre of the province, particularly at *Dewara* and *Bageswar*, consisting of tombs, constructed with large flat tiles, and in other respects, substantially built; these cannot, consequently, be attributed to the aborigines, who were too rude to have made use of tiles or bricks for any

purpose, while they differ both in form and appearance from the graves of Jogís, the only class of Hindus which adopts sepulture. It is therefore to Tartars or Mahomedans only that these graves can be ascribed. The extreme sanctity of *Bageswar*, a principal "*Prag*," or *Jamtran*, precludes the supposition that either of these sects would have been suffered, as subjects of a Hindu government, to pollute that place with their dead, while the Mahomedans, as is well known, were never able to effect any conquests within these hills. By the natives, these tombs* are called Mogul. The *Darma Bhoteas* from the association of the Mahomedan creed with the name of Mogul, repel as an insult, the extraction here attributed to them; they are, nevertheless, unable to assign any other, while the difference in language, customs, and dress, particularly of the females, proves that they could not have had a common origin with the other *Bhoteas*. No opportunity has been offered for comparing the *Darma* dialect with that of the Moguls.

The religion of the *Bhoteas* has been naturally influenced by their peculiar situation and pursuits, subjected to a government, which, as regarded the infringement of its religious tenets, was ever intolerant. The *Bhoteas* have been compelled to conform with the Hindu prejudices; continued intercourse with the latter sect has also led to a gradual adoption of many of its superstitions, while the annual communications maintained with *Tibet* have served to keep alive the belief of their forefathers. The *Bhoteas* may now be regarded as Pantheists, paying equal adoration at every temple, whether erected by the followers of *Brahma*, of *Budd,h*, or of the *Lama*. The only temples in *Bhot* are small rude buildings erected with loose stones, merely sufficient to shelter the idol. The *Bhoteas* have no priests of their own caste, but avail themselves, according to circumstances, of the services of a *Brahmin* or of a *Lama*. Among the *Darma Bhoteas*, divination is practised; the omens are taken from the reeking liver of a goat or sheep, sacrificed for the purpose, by ripping up its belly. No undertaking of importance is commenced without this ceremony; when the first augury proves unfavorable, fresh animals are sacrificed, and further inspections made; the result of the majority of omens decides the question. The office of diviner appears to be assumed indiscriminately by all males of good age; certain previous purifications are undergone on each occasion.

* Gold ornaments and arms are reported to have been occasionally found in them, several graves have been exposed in digging foundations at *Bageswar* since 1815, but they contained only small earthenware lamps.

The *Bhoteas* ought necessarily to have no distinctions of caste: the *Mana, Nití,* and *Juwar Bhoteas,* however, pretend to consider those of the *Darma* and *Byanse* ghâts as an inferior sect, and neither eat nor intermarry with them. The descendants of the first colonists in the villages at the mouths of the ghâts, who now confine their pursuits to agriculture, and maintain no direct intercourse with *Tibet,* affect similar pretensions in regard to the *Bhoteas* within the ghâts, while all unite in assumptions of superiority to the natives of *Tibet,* though on their annual visits to that country, they are compelled to drink tea at the houses of their several correspondents, such ceremony being there an indispensable preliminary to every commercial dealing. Of late years, the *Juwar Bhoteas* have affected to imitate the niceties and scruples of *Hindus,* in regard to food, and have assumed the designation of "*Sinh;*" but they have derived no consideration from these pretensions, and continue to be regarded with abhorrence by the *Hindus,* as descendants from a cow-killing race. The policy which may have dictated this line of conduct having now ceased, with the abrogation of the Brahminical government, it may be expected that these pretensions will gradually disappear, and that the *Bhoteas* will relapse into the unscrupulous habits of their Tartar ancestors.

In the institution of marriage, the inclinations and will of the female appear to have greater weight than is common in the east, both in regard to the formation of such engagements, and in the subsequent domestic management. Contracts are formed at an early age, but the marriage is not commonly concluded till the parties arrive at maturity. Should the female in the mean time make a choice for herself, the previous contract is compromised by the payment of a sum of money. The consideration given by the bridegroom to the father of the bride, varies from three hundred to one thousand rupees: a corresponding portion is returned, which consists of domestic stock, live and dead, and in some of the ghâts, is considered as the property of the wife, by whom it is managed for her own benefit. The females are chiefly employed in weaving blankets and coarse serges; the produce of their looms, after supplying the family with clothing, is also, in a great measure, at their own disposal. The nuptial ceremonies are uninteresting, they are invariably accompanied with riot and drunkenness.

The *Bhoteas* universally burn their dead; in *Darma,* this ceremony is performed in the month of *Kartick* only; the bodies of those who die intermediately, are committed temporarily to

the earth, and at the appointed season, the remains are taken up and burnt.

On these occasions the heir of the deceased is expected to entertain the whole of his kindred, and is commonly impoverished by the prodigality of the expense incurred. A number of goats and *yaks*, according to his means, are sacrificed at the pile; of the latter animals, one is selected for the particular service of the deceased, and is previously led about with many ceremonies, adorned with flowers and laden with cloth, sugar, spice, and such articles; precedence in the sacrifice is also given to it, and the decapitation is performed by the son-in-law, or some other near relation to the deceased. In the selection of this *yak*, the departed spirit is appealed to, and its choice is supposed to be indicated in the animal which is the first to shake its tail, when the stall is inspected by the heir. The *Bhoteas* universally profess extreme veneration for the manes of their fore-fathers, small monuments to their memory are numerous in the vicinity of villages, generally on the summit of some height; distinguished individuals are further honored by images of silver or stone, and by the annual celebration of festivals, on days dedicated to the purpose, when the image is carried in procession about the village, and receives offerings and worship. Among the *Darma Bhoteas*, when an individual dies absent from his native village, a clue of worsted is conducted to it from the spot where death occurs. In families of consideration the thread is extended unbroken throughout; by the poorer classes, it is only laid, in cases of considerable distance, along difficult parts of the road; the object of this superstition is to enable the departed soul to join the spirits of his ancestors. Suttees occasionally take place in *Juwar*.

The original languages of *Bhot* have been previously noticed, they are current only in verbal intercourse, as scarce an individual is to be found in *Bhot* capable of reading or writing the *Tibet*, while of the *Darma* dialect, it does not appear that any characters were ever in use. In the *Mana*, *Niti*, and *Juwar* passes, the Hindustani has become naturalized, and forms the medium of both colloquial and written communications; in *Darma*, it is also current, though not so generally; in *Byanse* it has hitherto made only a partial progress, as the necessity for its acquisition commenced at a recent period.

In the division of time, the Hindu method is followed exclusively.

In weighing and measuring commodities, the *Bhoteas* have necessarily two modes of computation, that of the hills and that of *Tibet;* the former has been noticed in a preceding report; of the latter, it will be sufficient to enumerate the denominations which are in most common use.

Gram, salt, borax, &c., are sold by measures of capacity, as follows:

8 handfulls make one "*Phúrúwa.*"
8 "*Phúrúwa*" make one "*De.*"
12 "*De*" make one "*Dobu*" or "*Guama.*"

This "*dobu*" is equivalent to the *kucha maund* of twenty seers; in some articles it contains eighteen "*de.*" Within the ghâts, the articles abovenamed are also calculated by the "*karbich*", or sheep saddle-bag, taken at four "*nalis.*" Grain is also computed by the—

| | | | *Nalis.* |
|---|---|---|---|
| "*Suyattor,*" large "*karbich,*" | equal | to .. | 20 |
| "*Swola,*" or basket, | ditto | ..... | 60 |
| "*T,haneh,*" or skin, | ditto | ..... | 60 |

Wool, sugar, hardware, &c., are weighed by the steel yard, which is divided into "*nega.*" The *nega* is about ten sicca weight.

Prepared tobacco, gur, &c., are divided into small flat cakes, called "*pola,*" of which from ten to twelve sell for the rupee.

Cloth is measured by the "*thú,*" or cubit, or by the "*khak,*" *khagam,* or breadth.

In fine goods, broad cloth, chintz, &c., the price is computed at eight "*khak.*" In coarse calicoes, twenty-eight breadths are required to complete the piece. Broad cloth is commonly sold by the "*baka,*" equal to two-breadths, and so called from being the quantity required to make up a robe of that name. Gold is calculated by the "*larswo,*" or "*phetang,*" equal to seven and a half *Masas.* Gold dust, separated into "*Phetangs,*" each tied up in a bit of cloth, is current as coin at eight rupees the "*phetang.*" Silver is computed at the "*jyú*" or *temashi,* (three Masas) and the "*gorma,*" or current rupee equivalent to four "*jyú.*" The *jyú,* is coined at Ladakh, and is of very uncertain standard: of late years, its metal has been improved. In this province it is called

"*gangatassi,*" and passes at the rate of something more than five to the milled Furruckabad rupee. In large payments, ingots, called "*lakola*" or "*doja,*" are used, these bear the Lhassa stamp, and are very pure silver; the "*doja,*" weighs seven hundred and sixty *jyús*, and is current at something less than two hundred rupees.

*Bhot* for a considerable period subsequent to its colonization, formed an integral part of the mother country. The trade carried on by its inhabitants rendered them, in some degree, dependant on the will of the neighbouring *Cis-Himalaya* chiefs; but they were long able to repel the contracted efforts of the latter, made for their subjugation.

The ultimate union of these principalities in the monarchies of *Gerhwal* and *Kumaon*, about three centuries ago, led to the conquest of the *Mana, Nîtí, Juwar,* and *Darma* passes, by those states respectively. The *Byanse* pass was severed from the principality of *Júmla* and annexed to *Kumaon* by the *Gorkha* power, about thirty years past. In becoming subject to the *Cis-Himalaya* powers, the *Bhoteas* were by no means withdrawn from their allegiance to the parent state, but still continued to acknowledge the supremacy of both; an anomalous state of subjection, which their paramount interests in continuing to be the medium of commercial intercourse between *Hindustan* and *Tartary,* will tend to perpetuate. The price extracted by each government for its protection, though much the same in its component details, is very unequal in its amount. The revenue demands of the *Tibet* government consist of "*Sinh Thal,*" land revenue. "*Ya Thal,*" tax on sunshine. "*Kiún Thal,*" tax on the profits of trade. These items are all levied at fixed and invariable rates. The "*Sinh Thal*" is assessed at twelve "*polas,*" of *gúr* per *konch,* on the *Khalsa* lands; but as a great portion of each village is held rent-free, on former grants, the aggregate payments under this head are very trifling. The "*Ya Thal,*" which, from its name, has probably originated in the migratory habits of the Tartars, who, during the winter, remove to the warmest situations, is assessed at one cake of "*bulma,*" or dried yeast per house. The above dues are collected by *Tibet* officers, who visit the ghâts with that view: the whole is received in kind, though the *gúr* and yeast are partly commuted for sugar, grain, spirits, and coarse calicoes. The *Kiún Thal,* is levied in the shape of transit duties, "*Kiún Kal,*" at the rate of ten per cent. on grain. These are also

collected in kind, at the first mart visited by the *Bhoteas*, the loads of every tenth sheep, together with the wool on its back, are there taken, unless commuted by the payment of twenty-seven "*polas*" of *gúr* per sheep. Duties are also levied on some few articles, agreeably to the rates fixed by an ancient tariff; commodities not included in that schedule, pass free. Broad-cloth, and many articles, the exportation of which from hence commenced at a comparatively recent date, fall under the last description. In some cases, individuals are subjected to a tax, called "*huro*," or plunder, substituted for the "*kiún kal*," or transit duties, and levied at nearly the same rates. This, from its name, should be a species of police tax, an insurance against robbery. The inhabitants of the northern village at the head of each ghât, enjoy certain immunities from these duties, and are, moreover, authorized by the Trans-*Himalaya* government to levy a transit duty of ten per cent. on the salt or borax of the *Tibet* traders visiting the ghât. This duty, as well as the "*kiún kal*," paid by the *Bhoteas*, is levied only on the first investment of each trader, during the season.

In matters of police, the *Bhoteas* are held responsible for the communication to the neighbouring authorities of all important transactions, which may occur in the *Himalaya* states. The local tribunals take cognizance of all cases brought before them by the *Bhoteas*, whether originating in *Tibet* or elsewhere. In civil proceedings, the decrees of the court written in the *Tibet* character and language, and sealed by the presiding officers, are delivered to the successful parties. A confirmation of these documents where they affect general interests, as also of grants exempting lands from public assessment, are obtained by the parties concerned from succeeding governors. It does not appear, that this government ever originates any enquiry into crimes or offences committed by the *Bhoteas* elsewhere, than in *Tibet*; nor does it delegate any power, judicial or fiscal, to the *Bhotea* village functionaries. Such are the marks of subjection which the mother country continues to demand from the *Bhoteas*. Those exacted by their Hindu conquerors have ever been more costly and more extensive. On their final subjugation, the *Bhot Mehals* were subjected to a tribute in gold dust; the quantity to be paid by each village, was ascertained and recorded in "*kanch*," or *tola, masa;* and *ratti*, the detailed cess, fixed under these denominations, has since constituted the standard estimate of each village, and represents the modes of measurement in use elsewhere. In *Níti*, the assessment was calculated in *damola*, equivalent to

half a *kanch*. The assets made available to the government demand, comprised—

1st. Profits of trade.
2d. "Tandkar," or loom tax.
3d. Produce of agriculture.
4th. Produce of jungles, (roots and drugs.)
5th. Musk.
6th. "Kota baz," hawks.
7th. "Bhera," or wild bees' nests.

In the kanungo records, the original *jama* is made up of separate sums, under these several heads. The aggregate of tribute imposed on each ghât was as follows:

| | *Kanch.* | *Masa.* | *Rutti.* |
|---|---|---|---|
| Juwár, .. .. .. .. .. | 133 | 5 | 2 |
| Darma, .. .. .. .. .. | 363 | 1 | 5 |
| Byanse, .. .. .. .. .. | 71 | 9 | 0 |
| | *Damola.* | | |
| Nítí, .. .. .. .. .. | 206 | 0 | 0 |

*Mana* appears to have been, from the first, granted in religious assignment to the temple of *Badarinath*, therein situate. *Byanse*, as before noticed, was only conquered a few years past by the *Gorkhas*; the *jama* paid to its former government, *Jumla*, has been assumed with the view to comparison. The rents of two villages in that ghât, which, as being east of the *Kali* river, fall within the *Gorkha* territories, are excluded. The above formed the ordinary revenue. The *Bhoteas* were, at the same time, equally liable with other subjects to the extraordinary demands, in the shape of aids and reliefs, on occasions of the marriage of the sovereign, or of his son or daughter, of war, &c. But as their assessment included a tax on trade, they were exempted from the payment of transit and bazar duties, throughout the dominions of their prince.

The villages below the ghâts incorporated with these *Mehals* were subjected to the same system of assessment, the only variation being in the detail of assets, of which, profits of trade form no part. The absence of this item is compensated by the increase under the head of agriculture, arising from an additional crop. As a considerable proportion of the land in these villages has been gradually acquired by the *Bhoteas* in property, either through grants or purchases, a view of the amount of their rents will not be irrelevant.

| | *Kanch.* | *Masa.* | *Ratti.* |
|---|---|---|---|
| Juwár,.. .. .. .. .. | 398 | 5 | 6 |
| Darma, .. .. .. .... | 42 | 7 | 0 |
| | *Damola.* | | |
| Nítí, .. .. .. .. .. | 125 | 0 | 0 |

This last sum is exclusive of the rents of *Joshimath* and other villages assigned to *Badarinath*, but which form a part of the district of *Paenkhanda*, in which the *Nítí* pass is also included; the latter name, from being more generally known, has been here adopted.

Mutual convenience naturally led to the commutation of the original article of tribute. The equivalent in silver, was settled at twelve rupees the "*kanch*," and a fixed and permanent valuation was made of various commodities, the produce of *Tibet*, or of *Bhot*, which were received in payment: as the market prices of these articles fell below the rates in the original schedule, it became the object of the *Bhoteas* to extend their payments in them: the proportion was, ultimately, established at one-half in kind, and the rest in coin; and in the event of the *Bhoteas* being required to pay the whole of their assessment in money, a deduction of twenty-five per cent. was allowed on the portion payable in merchandize, such being, in point of fact, the actual depreciation in the current prices from the rates fixed in the original appraisement. During the government of the Rajas, the public demand continued unaltered, though subject in its liquidation to the variations, arising from the depreciation above noticed. The greater part of the revenue was assigned to the garrisons of forts in the mouths of the ghâts, and to the payment of the civil local functionaries. The residue was collected on the spot, by an officer annually deputed from the court for that purpose, to whom also was granted authority for adjudicating the civil and criminal pleas pending among the *Bhoteas*. The internal management was left to the *Defteries* or *Putwaris*, and to the "*Búrhas*," or heads of villages, by whom also the detailed cess was apportioned, being laid every third year wholly on the land, and during the intervening period levied in the shape of a capitation, or rather of a property tax. The "*Búrhas*," in addition to the usual dues on marriages, &c. received a small public allowance from the rents of their respective villages: they were also assisted by petty officers, corresponding with the *Mokuddum* and *Kotwal* of the *Hindu* village institutions. These, again, were similarly remunerated. The garrisons abovementioned, appear to have been retained in the ghâts, principally with the view of protect-

ing the inhabitants from the incursions of the *Bhoteas* of the neighbouring ghâts, more particularly of the *Jats*,* or natives of "*Jamla*," a *Bhotea* state, east of the *Kali*.

On the *Gorkha* invasion, the principal opposition made to their arms was from the *Bhoteas*: for the period of nine years, after the submission of the rest of *Kumaon*, the *Juwáris* frustrated every effort made for their conquest, and it was a consideration of their commercial interests, rather than any successes of the invaders, which ultimately induced a subjection to that power. This resistance on the part of the *Bhoteas*, joined to an exaggerated reputation for wealth, marked them out for peculiar exactions; the public demand rose gradually to rupees 7,000 in *Nití*, 12,500 in *Juwár*, 10,000 in *Darma*, and 5,000 in *Byanse*, while in some years nearly double those sums were extorted, under various pretences, by the officers employed in the collection. The gross receipts of the inhabitants from every source of production, were inadequate to answer such excessive impositions, the capital and stock of individuals were gradually dissipated in their liquidation, and ultimately a load of debt was incurred for that purpose. When both the means and credit of the individual were exhausted, emigration became his only resource; in this manner, the depopulation of the ghâts was rapidly taking place, when the magnitude of the evil led to the interference of the Supreme Government. An officer of reputation, Captain Bhagti Thapa was especially deputed from *Nepal*, for the resettlement of the *Bhot Mehals*; under his vigorous superintendence, the present difficulties of the *Bhoteas* were, in a great degree, removed by the enforced restoration of a portion of the exactions, and by the reduction of the demands of their creditors to the mere principal sum actually advanced; while the principal source of these difficulties was cut off by a remission in the public revenue, reduced to 4,700 for *Nití*, 8,000 for *Juwár*, 7,000 for *Darma*, 2,700 for *Byanse*. The established principle of liquidation, half in money and half in merchandize, continued in force, but no longer afforded to the *Bhoteas* its former advantages. The whole of these *Mehals* were included in the military assignments, and their revenues were either collected by the assignees themselves, or were leased by them to some responsible individual; in either case, the demand for the half in merchandize was commonly disposed of in gross to some of the *Almora Sahús*, by whose skilful management

* As the *Jats* of *Hindustan* are considered of *Tartar* race, may there not have been some original connection between their ancestors and the *Jats* of *Jamla*.

it was raised to a full equality in value with the money half, at the expense of the *Bhoteas*.

The government *jama* was imposed on each ghât in one gross sum, and the detailed assessments left to be settled by the *Búrhas* among themselves: in this measure they always assumed the original amount of the village tribute, as the standard for calculation.

On the introduction of the British Government in 1872 *Sumbát*, the authorized collections of the two preceding years, were assumed as a standard for the *jama* of the current year; as the whole demand was fixed payable in coin, in *Furruckabad kaldár* rupees, a deduction of twenty-five per cent. was granted on the half hitherto paid in merchandize, and a further deduction to the same amount was allowed for the discount on the *Gorkha* currency. The net *jama*, which on the existing system was imposed in one gross sum on each Mehal, including the villages below, as well as those within the ghâts, stood at *Furruckabad* rupees 11,565.

In the year 1875 S. a general abolition of the customs and transit duties throughout the province took place; the tax on the profits of trade hitherto levied from the *Bhoteas*, as partaking of the same nature, was included in that measure: a partial remission on the same account was made in the *jama* of some of the lower villages, while both in these, and in *Bhot*, the items of musk, bees' wax, and hawks, were struck out of the available assets. By this arrangement, the net revenue was reduced to *Furruckabad* rupees 4,124.

This demand continued in force for the remaining term of the first triennial settlement, at the second triennial settlement, in 1877 S. and at the recent quinquennial settlement, in 1880 S. a progressive rise took place, on a view of the increase of cultivation, brought about principally by the return of tenants, who had emigrated during the *Gorkha* government, and finally amounted to *Furruckabad* rupees 5,812.

The revenue of every year has invariably been liquidated without a balance.

For the internal management of these Mehals, the only public officer retained in them is the *Putwari*, who receives from the village *Búrhas* the amount of their *jama*, and remits the same to the *Sudder* treasury. By this functionary are also

made the reports connected with Police, relating to casualties, &c. Criminal offences are rare; the total number since 1815, has been confined to four, of which two were murders, one a case of arson, and the fourth a petty theft: the three first mentioned crimes were perpetrated from motives of revenge. In the same period two inroads, by subjects of a foreign state, have occurred. In the winter of 1822, the village of *Melam* in *Juwár*, was plundered by a band of Tartars, during the periodical absence of its inhabitants. A part of the plunder has since been recovered through the authority of the *Lhassan* viceroy, at *Gartokh;* but the owners have hitherto declined receiving it, unless accompanied with an indemnification for the missing portion. The property in question, consequently remains in deposit at the *Gartokh* police office. The second inroad took place in 1823, at the *Byanse* ghât, the whole of the villages in which were subjected to a forced contribution by a party of *Jats*, from *Jamla*, on some antiquated claim of tribute. The whole plunder amounting to about 2,000 rupees in value has since been recovered and restored through the intervention of the *Gorkha* chiefs in *Datti*.

The only manufactures in *Bhot* are woollens, consisting of blankets, and serges of various descriptions; these are partly consumed by the *Bhoteas*, in clothing, tents, &c., the residue is disposed of in other parts of the province: this manufacture is not confined to any distinct class, but is carried on indiscriminately by the females of all ranks; the weaving is performed sitting, one end of the web being fastened to a stone, or stake fixed in the ground, the other secured by a strap to the body of the weaver; the yarn is prepared by the males, who may, at all times, be seen engaged in that employment, with a spindle in their hand, and a roll of wool round their wrist.

Trade as has been already incidentally noticed, forms the primary object of importance to the *Bhoteas*, and is the principal, if not sole consideration which retains them in the unfertile villages of *Bhot;* now, that waste lands, of a far superior quality in the northern pergunnahs, every where present themselves for occupation. The adjoining province of *Tibet*, here called "*Bhot*," and "*Huindes*," (snow land) indiscriminately, holds out peculiar attractions to commerce. Subjected, by the rigor of its climate, to perpetual sterility, it depends on the surrounding countries for almost every commodity, both of necessity and of luxury; to remedy these deficiencies, it has, at the same time, been amply furnished by nature with a variety of valuable products; its rivers and deserts abound with gold, in its

lakes are produced inexhaustible supplies of salt and borax, while to its pastures it is indebted for wool of an unrivalled quality. In addition to these staple articles, "*Huindes,*" yields many other articles of commerical demand, such as drugs, coarse precious stones, *chaour* tails, *tangans*, &c., with these wants and resources, the *Huindes* has naturally attracted the resort of numerous traders from every quarter, and has, in consequence, become a general mart, in which not only the wants of its inhabitants, but the demands of foreign merchants also are supplied. A periodical fair takes place annually in September, at *Gartokh*, the residence of the *Lhassan* viceroy, which is principally attended by traders from *Hindustan, Ladakh, Cashmer, Tartary, Yarkhand, Lhassa,* and *Liling,* or *China* proper: under the first description are included, the *Bhoteas* of this province, though at present those of the *Juwár* ghât, alone enjoy the unrestricted privilege of visiting *Gartokh.* The trade of *Huindes* is an exclusive system of monopoly and restriction, which appears to have been originally established for the encouragement of local and particular interests, and is now pertinaciously adhered to, partly from a reverence for ancient forms, and partly through the influence of the Chinese power. The intercourse to which the *Bhoteas* are admitted, is considered as a measure of sufferance, and a formal permission is requisite for its annual renewal. The trade from each ghât is confined to some proximate town, beyond which the *Bhoteas* are prohibited from proceeding without special license obtained from the local authorities, the *Juwári Bhoteas* alone, in consideration of military services rendered by their ancestors, enjoying an immunity from these regulations. On the upper parts of the ghâts becoming practicable, special missions are dispatched by the *Bhoteas,* to their respective marts. These *Vakils* are each attended by a single follower only, and carry a small offering of established value; on reaching their destination, they make a full report of the state of politics and of health in this quarter, the heads of their information are taken down in writing, for transmission to the viceroy at *Gartokh,* and they then receive their dismissal, together with a return in gold dust, equivalent to the offering brought by them. A *Huiniya* officer commonly accompanies or immediately follows the *Vakil* for the purpose of verifying the statements made by him, and to collect the tribute due from the *Bhoteas.* On the fiat of this officer, depends the re-opening of the intercourse.

This regulation would appear to be intended chiefly as a precaution against the introduction of small pox, or other contagious

disorders, as even the British invasion of the hill states occasioned no interruption in the intercourse with *Huindes*, although that event undoubtedly created a considerable sensation there. When the small pox is ascertained to prevail in any ghât, all communications with its inhabitants is temporarily prohibited. The commercial operations of the season usually commence by the arrival of the *Huiniya* traders in *Bhot*, as the superior strength and hardihood of their sheep enable them to cross the snow earlier than the *Bhoteas*; from this period (about the end of July) till the middle of October, the flocks of both parties are employed in plying with loads between the marts and the ghât villages. The *Huiniya* traders do not visit any villages below the ghâts, deterred partly by the jealousy of the *Bhoteas* and partly by a dread of the climate. The landholders of the northern pergunnahs, who transport their own produce into *Bhot*, are deterred by the same causes from proceeding to *Huindes*; even in *Bhot* they are precluded from dealing directly with the *Huiniyas*, whom they may meet there, but are compelled to barter their merchandize with the *Bhoteas*. A few of the *Almora* merchants occasionally visit the nearest marts in *Huindes*, more particularly Taklakot, at the head of the *Byanse* pass; but their ignorance of the *Tibet* dialect, and their want of the means of carriage, render them dependant, to a great degree, on the *Bhoteas*, and prevent them from trading in those articles of bulk, such as gram, *gûr*, &c., which afford the most certain and profitable returns. The *Bhoteas*, consequently, enjoy, to a great extent, a monopoly of the carrying trade from *Hindustan* to *Tartary*, in the supply of the local demands, in *Huindes*, and the system in force there operates to confirm a complete monopoly. The regulation which restricts the trade of each ghât to a prescribed mart, affects the inhabitants of the latter equally with the *Bhoteas*; this system is further extended even to individual dealings, and every trader has his privileged correspondent, with whom he alone has the right to barter. These individual monopolies, if they may be so called, are considered as hereditary and disposable property, and where the correspondent becomes bankrupt, the trader is under the necessity of purchasing the right of dealing with some other individual. From successive partitions of family property, and from partial transfers, this right of *Arath* has been gradually subdivided, and many *Bhoteas* collectively, possess a single correspondent. This system differs so far from that of the Hong merchants in China, that it leaves to every *Huiniya*, the power of trafficking directly with the foreign trader, though it restricts his dealings to particular individuals: the only persons who appear to be exempt

from its operation in *Huindes*, are the local officers, civil and military, and the *Lamas*. On the dealings of foreign merchants with each other, it has no effect. A brief notice of the several principal exports and imports may now be taken.

## Exports.

Grain forms the staple article of *Bhotea* export; it may be computed that from twenty to thirty thousand maunds of every kind annually find their way to *Huindes*, through the five passes collectively; the high prices and rapid sale, which this article invariably commands in that country, lend to the presumption, that the present state of supply is insufficient to the wants of the inhabitants; but no considerable augmentation in the former can be expected to take place with the present inefficient means of transport, to which the *Bhoteas* are confined by the difficulties of the passes. As the *Himalaya* villages yield no disposable surplus produce, the supplies for *Huindes* are drawn from other parts of the province, chiefly from the northern pergunnahs. The *Bhoteas* make their purchases in the same manner as the *Binjaris*, by carrying salt to the villages, and bartering it for grain. As soon as the loads of the whole flock have been exchanged, it is driven to an intermediate depôt, where the grain is stored and from whence fresh loads of salt are brought by the sheep. During the cold months this system extends to the midland pergunnahs; from the end of March the flocks ply in the northern districts, and from the beginning of May, they are employed in transporting the grain from the foot of the ghât to the *Himalaya* villages. For the convenience of this traffic, the *Bhoteas* have, accordingly, three depôts—one at their *Bhot* village, the second at the base of the *Himalaya*, and the third, some three or four days' journey below. Grain, to a partial extent, is conveyed by the northern landholders on their own sheep, to the *Himalaya* villages, and there similarly bartered for salt. The rates of barter which now commonly prevail, may be stated as follows. In the midland and northern pergunnahs, from three to four of wheat or rice for one of salt; and within the ghâts, two of wheat or rice for one of salt. To the *Huiniyas*, however, the *Bhoteas* give only one of wheat or rice for two of salt in *Bhot*, while in *Huindes*, they exact double that proportion. Coarse grains, such as *mundua*, *chenna*, &c., generally average half the value of the finer descriptions abovementioned, in this system of exchange. The advantages of this trade to the inhabitants of the northern districts, will be fully appreciated on a view of the state of prices, which, at this moment, prevails in different parts of the province. From the

nature of the country, its agricultural produce cannot be made available for distant markets, and the fluctuations of price which may there take place hence, beyond a certain sphere, no influence on prices in the interior. At *Almora,* which is supplied from the midland districts of *Kumaon* (proper) wheat is now selling at twenty-five *sérs* the rupee. In the southern villages, both of *Kumaon* and *Gerhwal,* from whence exportation to *Rohilkhund* takes place, the price is nearly the same. In the whole of the northern pergunnahs, whence the *Bhoteas* derive their supplies, the average price may be quoted as still higher. In the western midland pergunnahs of *Gerhwal,* to which none of these demands extend, wheat is selling at two maunds the rupee, and purchasers even at that rate are not forthcoming.

*Calicoes*—from the constant use of woollen clothes throughout the year, the consumption of cotton fabrics in *Huindes* is small; the demand is confined to the coarsest descriptions, as quantity not quality, is the first consideration with the *Huiniya* purchaser. Europe prints are in partial request among the chiefs and foreign merchants. The aggregate value of exports, under this head, cannot be estimated at above ten thousand rupees annually.

*Hard-ware*—including cooking utensils of copper, brass and iron, coarse cutlery, swords, matchlocks, &c., is exported to the extent of about ten thousand rupees.

*Broad cloth*—not more than thirty bales, chiefly of a coarse quality, are annually disposed of by the *Bhoteas;* but, did facilities exist for procuring cloths of the desired qualities and colors, the sales might be very considerably increased. The common military colors, such as red, yellow, blue, green and grey, are the only ones generally procurable by the *Bhoteas*—of some of these colors, the use in *Tartary* is confined to peculiar sects and classes, and for the others, the taste has been long exhausted. Cloths of unusual color, such as olive, various shades of brown, &c., invariably command a quick sale. The enormous advance laid by the *Bhoteas* on the prices of this, as well as other articles of export, must also tend to lessen the demand.

*Coral* is prized, as an ornament for females, even above precious stones; the large bright scarlet beads of *Mediterranean* coral, will command almost any price. Inferior descriptions also command a ready sale, though at lower rates.

*Pearls*—in these, size is the principal desideratum, shape and color are points of less importance; no difficulty is consequently experienced in supplying the demand to its full extent. The export in this, and the preceding article, averages about five thousand rupees in value annually.

*Gúr*—about one thousand maunds.

*Sugar-candy*—one hundred maunds.

*Spices*—ten maunds.

*Dyes*—chiefly lac and indigo, ten maunds.

*Wooden Vessels*—chiefly cups for tea, are in considerable demand; these are turned from various kinds of wood; those in greatest request are formed of the knot of a particular tree, which is to be found only in the eastern hills, near and beyond *Kutmandu*, whither the turners from *Bhot* annually resort. Tea cups of this wood are deemed by the *Tartars* to possess peculiar virtues, and an unblemished specimen will sell as high as fifty rupees; the price of ordinary cups varies from four annas to two rupees each.

*Timber*—in the shape of spars and planks, for building, is carried for sale to the nearest marts. Indigent *Bhoteas*, who have no other capital but their labor, carry on this traffic.

Cabinet-ware, glass-ware, and a variety of other commodities are partially exported: their aggregate value may be assumed at ten thousand rupees.

### Imports.

*Salt*—the natural produce of lakes in *Huindes*, is universally preferred in this province, for culinary purposes, to the *sámbher* and other cheap kinds of salt, from the plains: the latter are considered comparatively bitter and unpalatable, and are only used for cattle. The relative prices of the two kinds of salts in question at *Almora*, are from six to seven rupees the maund for *Bhot*, and three to four rupees for plain salt. The *Bhoteas* never part with their salt, except in barter for agricultural produce, and by adhering rigidly to this rule, they are enabled to command a supply of the latter, even in the most unfavorable seasons. The total quantity of salt imported, may be assumed one year with another at fifteen thousand maunds.

*Tincal*—also the natural produce of a lake in *Huindes*, for some years subsequent to 1815, formed the most profitable article of speculation, but the demand has now greatly declined. During the *Gorkha* government, that is, up to 1814, not more than a thousand to fifteen hundred maunds of tincal ever reached the plains through this province during the year. On the British invasion, and even before the conquest was completed; large advances were made by British merchants to the *Bhoteas*, for the provision of this article. By the competition among the former, the amount of their advances was rapidly augmented up to 1818, when the quantity imported exceeded twenty thousand maunds, as it did also in the two following years 1818 and 1819. This import, as compared with the demand in England, for which market it was chiefly intended, would appear to have been excessive. Heavy losses, and a consequent withdrawal of capital from the speculation were the consequences. The supply has since as rapidly decreased, and may be now stated, at seven to eight thousand maunds. During the above periods, the price has been subject to the same fluctuations up to 1814, the market rate of this article, in its unpicked state, never exceeded three and a half rupees the maund, at the marts of *Kusípoor* and *Belari;* in 1818, it had risen to fourteen rupees the maund, and some partial sales were made in that year as high as sixteen rupees; during the two following years 1819-20, the price ranged between twelve and fourteen; it has since gradually fallen to eight, at which it may now be quoted. The article is imported by the *Bhoteas*, in its original state, as procured from the lake. By the merchants the tincal, or natural crystals, are picked for the Europe market, and the dust is prepared into refined borax. The residuum, consisting of river sand, is always considerable, varying in different years, from twenty to above thirty per cent. The *Bhoteas* are not accused of adulterating the article, though the petty hill traders, who purchased it from them, were, for some time, guilty of such practice to a great extent; the refusal of the plain merchants to take the article from these people, except with a specific assurance against loss in refining, beyond a given proportion, has checked this fraud. The prices in *Huindes* correspond with those of salt—this article being similarly obtained in barter for grain. A view of the state of import in Great Britain, during the period in discussion, may not be irrelevant.

| *Years.* | *Value.* | *Years.* | *Value.* | *Years.* | *Value.* |
|---|---|---|---|---|---|
| 1814 | £ 10620 | 1817 | £ 32,573 | 1820 | £ 209,175 |
| 1815 | 59,200 | 1818 | 76,666 | 1821 | 51,651 |
| 1816 | 103,361 | 1819 | 215,591 | 1822 | 25,268 |

The above statement is taken from a periodical publication where it is given as the amount of Indian import alone.

*Wool*—the produce of the *Tartar* sheep, known in commerce under the name of *berjengi*, is imported to the extent of five or six hundred maunds—part of which is consumed by the *Bhoteas* in the manufacture of *pankhis** and the remainder is taken off by the zemindars of the northern pergunnahs for blankets; the money price may be stated at fourteen to fifteen rupees the maund, but it is usually disposed of by the *Bhoteas* in barter for oil, or other produce. The supply above noticed is almost wholly obtained from the flocks of *Huiniya* sheep, which visit *Bhot*, laden with salt, or borax, and are there shorn.

*Shawl-wool*—the produce of the *Tibet* goat, was temporarily imported during three years, with a view to the provision of the Compnay's investment: this demand has since ceased. This article may be procured, through the *Bhoteas*, to any extent, deliverable at *Bagéswar*, in its rough state, mixed with hair, at from thirty-six to forty rupees the maund.

*Gold dust*—procured from the sands of every river in *Huindes*, and also obtained in small lumps by digging near the surface in various parts of the deserts, is imported in small quantities. The frauds found to be practised by the *Huiniyas* or *Bhoteas*, in alloying this metal and in mixing copper or brass filings with the dust, have created a general distrust in the purchase of this article: not more than hundred *phetangs* or eight hundred rupees worth annually find a sale.

The remaining articles of import, comprising coarse shawls and *pattu*, inferior silks, cowtails, ponies, drugs, dried fruits, *harital*, saffron, cured leather, similar to the Russian, &c., &c., may be assumed at twenty thousand rupees annual value.

As during some years from 1816 to 1821, the value of the imports greatly exceeded that of the exports, the deficiency on the latter was supplied by coin. *Furruckabad* new rupees, to a considerable amount, then found their way to *Huindes*, of which they became the favorite currency.

It now only remains to offer a few observations on the former and present state of this commerce. During the time

* The *pankhi* is a species of serge, varying in quality, some having the wool left long on one side.

of the Rajas, the *Juwári Bhoteas* alone, traded on the products and manufactures of the plains, the *Bhoteas* of the other *ghâts* confining their dealings to grain; these latter under the *Gorkhali* government, have extended their speculations, and the trade of the *Juwáris* differs from that of the other *Bhoteas* now, only in its superior extent. In the early stages of this commerce a regulated and fixed assize appears to have been made by the Trans-*Himalaya* government, agreeably to which the commodities of the two countries were required to be bartered against each other. The commodities of *Hindustan*, from the smallness of the supply, and from the exactions and robberies to which they were subject in transit through the hills, were appraised at high rates; though these causes have been wholly or partially removed, their original effects remain in force, and the *Bhoteas* continue to exact the old, and arbitrary prices. Since 1815, a most material improvement in favor of these traders has taken place; by the encreased facilities of communication with the plains and by the total abolition of transit duties, the imports from thence are now furnished in greater abundance and at reduced prices; at the same time by the influx of capital from the same quarter, the demand and value of every article of import from *Tartary*, have been considerably enhanced: of these advantages, increase of sales is the only one of which the *Huiniyas* have partaken in common with the *Bhoteas*. Were more equitable principles to be introduced in the transactions of this commerce, and were the commodities of *Hindustan* and *Europe* offered on fairer terms in the *Huiniya* market, it is difficult to say to what extent the demand might be augmented. While the *Bhoteas* retain their existing monopoly no such desirable modifications can be anticipated, as a continuance of the present exorbitant rates of profit is almost indispensible to avert general bankruptcy, which must otherwise result from the heavy load of debts, with which the *Bhoteas* are universally saddled. From the establishment of a direct intercourse between the *Almora* merchants and those of *Tartary*, the desired object will doubtless be gradually gained, the same capital will continue vested in the trade, but the whole profit of the speculation will there fall to the capitalists, while the losses to which the latter is now constantly subjected from the failure of the intermediate trader, will be prevented; under such circumstances the rates of profit would naturally be lowered, and the demand and supply of exports from *Hindustan* might be expected to increase. To the *Bhotea* the disadvantages resulting from such a change would be more apparent than real. In the trade of the most profitable article of barter, grain, little or no competition could be offered, and

though he might no longer be able to speculate in the commerce between *Hindustan* and *Tartary*, yet the necessity of his services as a carrier would always enable him to command a considerable proportion of the gross returns of that trade.

It would here be desirable to offer some accounts of the adjoining Trans-*Himalaya* state, but the watchful care with which the entrance of Europeans is prevented, the extreme precautions with which natives of India not *Bhoteas*, are admitted, and the jealous restrictions to which even the *Bhoteas* are subjected, preclude the acquisition of any particular and authentic information on points, connected with the local administration and resources of that country; a few general notices may, however, be given.

The province of *Huindes* is by its inhabitants called *Nari*; while at *Ladokh* and to the westward, it appears to be known by the name of *Chung* or *Jhang Tung*, an appellation nearly synonymous with *Huindes*. It is subject directly to the *Lama* at *Lassa*, and is administered by officers deputed or appointed from thence.

The chief government is entrusted to two officers conjointly, who are called *Garphans*, with the additional title of *Urgú Ma*, and *Urgú Ya*. They reside at *Gartokh*, and are relieved after three years: natives of *Lassa* and of that neighbourhood, are invariably nominated to these situations. The province is subdivided into districts, each containing a certain number of towns and villages. The internal administration in each district is similarly confided to two officers, called the *Deba* and *Vazír*, whose appointment also emanates from *Lassa*; the *Deba*, commonly a native of the eastern provinces, is also changed every three years; the *Vazír* who is one of the principal inhabitants of the district, holds his situation during good behaviour. The measures of these officers are subject to the control of the governors at *Gartokh*.

The *Urgú Ma* and *Deba* appear respectively to enjoy superior consequence and consideration, but to give effect to their acts the concurrence of their colleague is indispensible.

The only regular military force in the province is said to consist of two hundred horse, stationed at *Gartokh*; this body must have been originally recruited from Tartary, as the men of which it is composed are described by the *Bhoteas* as a horse-eating race. Each town and village has its enrolled

militia, liable to be called upon whenever their services are required. The religious institutions are under the exclusive control of the provincial and district *Lamas*, who also appear to exercise considerable influence in the local civil administration.

A rapid communication with the capital, *Lassa*, is kept up by means of a horse post; the stages are from fifteen to twenty miles apart, and four horses with their riders are retained at each.

The several public establishments are all remunerated by grants of revenue in its different branches. These latter have already been enumerated (para. 37.) Of the aggregate resources of the province no estimate can be obtained; from the concurrent testimony of the *Bhoteas*, it would appear that the *Huiniyas*, are grievously taxed and oppressed under their theocratical form of government. The towns and marts to which the trade from each ghât is respectively confined, are as follows:

| | |
|---|---|
| *Mana* to *Chaprang*. | *Dharma* to *Kuinlang*. |
| *Nîti* to *Dapa*. | *Byanse* to *Taklakot*. |

These are severally the principal towns of districts, and as such the residence of a *Deba* and a *Vazír*. The *Juwâri*, as before observed, have a general license to trade in every part of the province.

Few opportunities have occurred for obtaining an insight into the peculiar usages and customs of the *Bhoteas*, as when down in the *Hindu* portion of the province—they conform generally to the practices in use there. In their personal appearance the *Bhoteas* are perfect *Tartars*, and exceed the natives of this province in size and stature; more particularly the *Dharma Bhoteas*, among whom individuals possessing extraordinary strength are far from uncommon.

The dress of the male sex is in all the ghâts nearly similar, consisting of the common eastern robe and loose trowsers, with a skull cap, all of woollen stuff, to these is added a *komarbund* of calico. The *Dharma* and *Byanse Bhoteas* invariably wear woollen boots, reaching nearly to the knee; these are composed of stuffs of different colors sewn chequer-wise. The soles are of buffalo hide.

The *Bhoteas* of the other ghâts also use boots, of plain woollen stuff, when travelling over snow. In the *Mana*, *Nîti*

and *Juwar* ghâts, the females adopt the dress worn by the same sex, and corresponding classes in the northern pergunnahs. The *Dharma* and *Byanse* women retain a *Tartar* dress. This consists of a web of cloth folded round the body, and descending from the waist to the ancles in the form of a petticoat; at the waist it is secured by a girdle, commonly of leather: above this is a shift without sleeves, reaching below the knee; while above all is a narrow hood fixed on the top of the head and covering all but the face, shewing a tail descending down the back nearly to the heels; a pair of boots, similar to those of the men, completes the equipment. The above articles of dress are all made from woollen stuff dyed either red or dark blue, having narrow white stripes. The ornaments of these ladies baffle description and bear no resemblance to any thing worn elsewhere: the most prominent are the earrings, commonly of pewter, which in size and shape, may be compared to a massive house-door key. Strings of large pieces of coarse amber are worn round the neck in addition to two or three indescribable necklaces. The *Bhoteas* of both sexes and of all classes in every ghât, carry suspended from the wasteband by small chains or thongs of leather, a variety of instruments of daily use, such as knife, spoon, scissors, awl, packing needle, tweezers, steel flint, tobacco, paunch, &c. The *Bhoteas* consume large quantities of food, particularly of animal, of which a constant supply is afforded to them in the carcases of their sheep and goats which die from fatigue or disease. The *Mana, Nîtî* and *Juwar Bhoteas* scrupulously abstain from the use of beef of every description; by the *Dharma* and *Byanse Bhoteas* the *chowar gae* is eaten, and the common kine would probably not be spared by them, but for the general prohibition against the slaughter of that animal which is in force in this province. The *Bhoteas* are much addicted to the use of spirituous liquors, in extenuation of which practice they plead necessity from the nature of the climate in *Bhot*; when collected together in any place, they have frequent drinking parties, which are continued during the whole night and sometimes kept up even for the ensuing day. Intoxication with them does not, however, lead to riot or disorder. The liquor in use is of two descriptions *darû* or whisky, produced by distillation, and *jan* obtained by simple fermentation: the latter is the favorite beverage. Both are procured from rice: to hasten the fermentation dried yeast, *balma* reduced to powder, is added: a few hours only are required to render the *jan* fit for use. The *balma* is prepared from the meal of barley or other coarse grain on which an infusion of the berries or sprigs of the juniper, or of the *suri*, in water is made to filter: the dough is kneaded, and when ready, dried in small cakes for

keeping. The *balma* is said to retain its properties for many years; its manufacture, which is tedious, forms the exclusive occupation of particular individuals.

Of the *Bhoteas*, it may be observed generally, that they are an honest, industrious and orderly race, possessed of much good humour and patience: in their habits they are commonly dirty, more particularly the *Dharmas*, who openly profess an hereditary prejudice against ablutions of every kind: to this profession they fully act, and, except on particular occasions of religious ceremony, never wash either their hands or face. The skirts of their dress serve to cleanse both their persons and their cooking utensils—to scrub the latter either with sand or water, would, they conceive, be attended by disastrous consequences, as already noticed in treating of the climate.

In concluding this report, it may be added, that, on those points of rural and domestic economy which have been passed unnoticed, little or no variation exists from the practices followed in other parts of the province, and already detailed in a previous report.

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*(Reprinted from the Asiatic Researches, Vol. XVII).*

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# REPORT ON THE SETTLEMENT

OF

# THE DISTRICT OF GURHWAL,

## IN THE PROVINCE OF KUMAON,

BY

J. H. BATTEN, ESQ., C. S.

To G. T. LUSHINGTON, Esquire,

*Commissioner of Kumaon.*

Sir,

Introduction. I have the honor to forward two general statements for zillah Gurhwal: No. 1, exhibiting the revenue assessment according to the re-settlement made under the provisions of Regulation IX. of 1833, of every puttee and pergunnah, with the total result for the whole zillah, drawn up in comparison with the assessments of former settlements; No. 2,* shewing the distribution of increase and decrease made in the Government demand throughout every division of the zillah.

General Statement. II. The mouzahwar statements of each pergunnah have previously been forwarded to your office; but as alterations of jumma in some instances, and of the number of separate leases, and of the distribution of villages included in the several pottahs in other instances, have been subsequently made, I respectfully beg leave to recommend that the two statements now forwarded be alone sent to the Sudder Board for their inspection and approval. These have been drawn up with all the changes which may have been ordered in regard to amount of Government jumma by the

* Note.—Not published.

Commissioner, consequent on appeals and references.* The only summary settlement made since the completion of the proceedings under report, (at least the only one which has been brought to my notice,) has been that of mouzah Chorkundee, puttee Sablee, pergunnah Mulla Sulan, reducing the revised jumma from rupees 96 to rupees 64; the cause of the reduction being a considerable loss of arable land by floods which occurred subsequent to the settlement. A note on this summary settlement has been made at the foot of the tabular statements; but, as the copy of the order sanctioning the change has not been communicated officially to me, I have left the alteration in the puttee and pergunnahwar columns, and in the total amount of jumma for the whole district to be made during the passage through your office.

* These statements also included all recent Nia Abad leases, which have passed through the Settlement Office.

III. It appears from a statement B. attached to Mr. Commissioner Traill's printed statistical sketch of Kumaon,* that the amount of revenue fixed by the Goorkha government at the last settlement made for that part of Gurhwal which is now included in the province of Kumaon, amounted to 1,04,551 Goorkha rupees, equivalent (at the rate of 12 annas per rupee) to 78,414 Furruckabad rupees. Of this sum rupees 82,406, equal to 61,805 Furruckabad rupees, formed the land revenue; while the remainder, rupees 22,145, equal to 16,609 Furruckabad rupees, was made up from the following heads: salami or nuzzurana—mijhari or tax on domes—tunkur or tax on looms—sonya phagun or bhet on festivals—adheani dufteree or canoongoe allowances—sayer or customs—tamba khana taksal or mines and mint duties—khuersal or kuth muhals—kat bans or timbers and bamboos—sayer exclusive of customs—and asmani firmani or estimated fines and forfeitures. In another statement (D.), the last Goorkha settlement for Gurhwal is put down at rupees 91,258, apparently Furruckabad rupees, and probably being the sum actually collected; the sum named in statement B. be-

Former statements and abstract of present settlement.

* Vol. 16, Asiatic Researches, published in Calcutta, 1828.

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The discrepancy between Mr. Traill's printed statements and those appended to his periodical settlement reports and the statements now forwarded, arises from the great imperfection of the records for the earlier years, and from the fact that in subsequent years villages have been transferred from one puttee to another, whilst others have fallen entirely waste and been excluded from the records. My statements refer only to the past and present statistics of villages included in the present settlement.

ing that fixed by the Goorkha Commissioners. The British assessments are as follow :—

| 1872St. | 1873St. | 1874St. | 1875St. | 1877St. | 1880St. |
|---|---|---|---|---|---|
| 35,990 | 41,781 | 46,174 | 45,548 | 54,996 | 64,900 |
| | | | *New Settlement.* | | |
| 1885St. | 1890St. | 1898St. | 18998t. | 1900St. | 1901St. |
| 67,725 | 69,254 | 68,661 | 68,669 | 68,676 | 68,682 |

The highest jumma of the revised settlement, viz. rupees 68,682, is that which I propose for the sanction of the Board and Government, less by rupees 32, the amount reduced by the summary settlement alluded to in the last paragraph. The number of separate malgoozaree pottahs in the settlement last made by Mr. Traill was 1710, exclusive of Chandee. In the present, the number of pottahs is 1894, making an addition of 184 malgoozars or pudhans. The number of villages, whether large or small, or mere names of lands, which, according to custom or the pleasure of the people, have hitherto been separately recorded as dakhlee mouzahs, though often having no separate inhabitancies, is 4,103, and the quantity of land included in their assessable area is 88,674 beesees, divided as follows—63,823 cultivated, 22,702 culturable, 2,149 huq pudhanee. The average rate of assessment being 12 annas and 4 pie on total area, and 1 rupee 1 anna and 2 pie on cultivation per beesee. By a comparison of the abovementioned data it appears that rupees 36, is the average amount of jumma for each separate lease, a fact which at once shows how different the circumstances of this district are to those of other divisions; but calculating one-fourth of the dakhlee mouzahs or lands included within 1894 uslee mouzahs, as having separate inhabitancies, whether large or small, (and this is not too large an allowance,) the average jumma per hamlet is so little as 28 rupees.

Remarks explanatory of the Report.

IV. In the following report I shall not attempt to avoid a repetition of language formerly made use of in the numerous letters on the subject of the settlement which have preceded it; nor shall I think it necessary to mark such repetitions as quotations; my object being, on the present occasion, to lay before superior authorities, once for all, in a manner that will save them the trouble of reference to past correspondence, a plain account of my actual proceedings from first to last, viewed in relation to doubts, difficulties, and inopportune circumstances which have occurred to delay their completion,

or render them less satisfactory than might at one time have been expected.

Histoy of the new Settlement.

V. On first taking charge of the Gurhwal pergunnahs in 1837, I had every thing to learn in regard to the peculiarities of the Hill revenue system, and every thing to teach, as far as my experience acquired in the plains would allow me, in regard to the revision of settlement required, or then supposed to be required, by the Sudder Board of Revenue. It is difficult to say whether the Gurhwal tuhseeldar, the canoongoes and putwarees were more astonished at the terms "Regulation IX. of 1833," my own title of "Deputy Collector," and my confident proposition of a settlement for a period of 20 or 30 years being about to take place; than I myself was confounded at the circumstance of having to wander over more than 4,000 square miles, in order to revise 70,000 rupees of jumma, which I was told Mr. Traill had, at the last occasion, revised in less than a month, on the road between Hurdwar and Budrinath; and that there was neither a village map to help me, nor a record of area on which the slighest reliance could be placed. Both during the year 1837, when my actual labours as Settlement Officer had hardly commenced—and during 1838, when I was personally at work in different camps—all my difficulties, whether real or imaginary, arose from the vision of a complete settlement, according to line and rule, constantly floating before my eyes, interfering with my view of the actual local facts with which I had to deal, and inclining me to turn a deaf ear to all the representations of those native officials, who had formerly carried into effect Mr. Traill's plans. The reports made by me at that time to Mr. Turner, Commissioner of Rohilcund, will probably be remembered by one of the Members of the Board, as propounding questions rather difficult of solution by authorities to whom only partial glimpses were given of the real nature of the difficulties which I thought surrounded me, and to whom I still wrote in the language and tone of the regular Settlement Officer of a regular surveyed district. The answers received were accordingly somewhat oracular; leaving me perhaps with a clearer view of what perfection might be reached, if insuperable obstacles did not intervene—but more despairing than ever of my own abilities to satisfy my employers, and at the same time benefit the people, in the midst of whom my tents were pitched. From the moment that I rejected the notion of forming my village settlement on comparisons of measurement rates, or rather on rates per fractions of an area guessed at, but never measured; and

that I took into consideration the casual circumstance of the villages, independent of the quantity and quality of their land, the latter merely forming only one item, though an important one, of my calculations—the greater part of my doubts and difficulties vanished. Then I was enabled, more especially after the aid of a Native Deputy Collector had been afforded me, to carry on without misgivings—and I hope with real success—the actual business of settlement; that is the fixing of a fair Government demand for 20 years for each estate, or set of estates, which required separate engagements; and the discovery and declaration of the rights, liabilites and comparative possessions, *according to their own shewing,* not according to any authoritative data, of the several communities.

Principles of Assessment.

VI. *The jummabundee now forwarded for the approval of the Board and the Government, has been founded on the past payments of each estate, or set of estates, viewed in relation to its present state of prosperity, as shewn by the state of cultivation, the number, character and health of the inhabitants, the locality of their possessions, and their general resources, whether mercantile or agricultural, as fairly proved according to the opinion of their influential neighbours, consulted in open punchayet on the subject.* The new jummas have now stood the test of individual appeals made to yourself during the course of three years; and have, I believe, been found to press heavily on the people in but few instances, and there a remedy has been applied. The question remains whether the decrease of rupees 701,* in the Government demand on the whole zillah, was called for, and whether the interests of Government have been sufficiently considered. I have no hesitation in declaring, that if I had thought fit to make pergunnahwar jummabundees, and had employed the Government putwarees and the thokedars in the duty of distributing the whole amount by *dursur* (as they call such a distribution of the jumma) throughout the mouzahs of each pergunnah or puttee, I could have always made good the loss of revenue, found necessary to be incurred in one village, by an increment arbitrarily placed on another, and thus the total Government demand would have remained undiminished. But my own principles were, except in the case of the Bhote mehals (to which reference will be made in its proper place),

* The sum of Rs. 701 total decrease, includes Rs. 129 belonging to excluded villages, which have fallen waste. The decrease on villages included in the present settlement amounts to Rs. 572.

strongly opposed to such a system of balances and adjustments, on the following grounds, viz., the physical fact that no one puttee, however small, has one natural character for all its villages; and that, in fact, each village has a separate character, according to its height on the mountain side, vicinity to, or distance from the forests; situation on the mountain, or in the valley; and above all, its climate, as caused by these circumstances. Neither are there, for the most part, sets of villages forming one line at one height, and other sets forming other lines at other heights; and though it would be easier to form a jummabundee on a list of mountain-top villages, upper slope, middle slope, lower slope, and valley villages respectively, still great difficulties would occur, without a regular survey, in fixing the real characters of the different lines; and the moral obstacles, hereafter to be alluded to, would be found to separate the different mouzahs of each line more rigidly even than the intervening precipices.

Physcial peculiarities affecting the Settlement.

VII. Vast tracts of the province are composed of bare rocks, or covered with forests: in some parts such features are confined to the upper parts of the mountains, whose sides and base are adorned with the richest fertility; while, in other parts, the finest slopes or the fairest valleys are succeeded by continuous miles of river glen, where precipices and woods extend to the lowest depths. Sometimes the jungle is below the cultivated tracts; sometimes above. In one place, individual villages or sets of villages are separated from their neighbours by almost impervious forests or impassable crags and rivers; in another, villages having little barren waste are mutually divided by a small copse or ravine, or by the natural boundary of a stream flowing between their fields; so various are the features of the country through which the hamlets are interspersed; and, however notorious one puttee may be for its plenty, and another for its poverty, no opinion in either case can be formed of the natural capabilities of one village, by the view of its neighbour, in even the smallest subdivision of a tract. It may here also be mentioned that in the plains, water can always be found by digging to a greater or less depth: and that there, the only question arising with reference to this important element, whether for drinking or for irrigation, is merely the expense of a well, and the means of drawing up and distributing the water. In a mountain tract, the springs are placed most capriciously by nature; and though it may always be assumed that at a certain distance from the summit of a range, the level of springs will be reached (at a high level

for instance on clay slate formations, and at a lower level among cavernous limestone rocks); still, large spaces intervene between the different outbreaks of the water. The character of the ground alone determines the practicability or otherwise of irrigation: and the deep glens and lesser ravines, which cut the mountain sides, carry off into their barren and rocky bosoms volumes of water, which, if distributed as wanted throughout a tract, would render the whole land teeming with fertility.

Moral circumstances affecting the mode of settlement.

VIII. Such were the physical reasons which convinced me of the propriety of settling each mouzah with its dakhlee lands on its own capabilities, and not with reference to a distribution of jumma throughout a given pergunnah or puttee. But against the latter plan there also existed the moral obstacle, that however acquiescent or perhaps indifferent to the mode of allotting jummas by the dursur arrangement the mass of the people were, when each assessment was only made for quinquennial and other still shorter periods, a different state of feeling arose, when the period of settlement was fixed at 20 years. Then each pudhan began to question the right of any one save the Settlement Officer, to fix his share of the revenue burden; and much began to be spoken or rather clamoured about the spite and favor of the thokedars, on whom the invidious task of allotment, if they were just men—and the suspicious task, if they were partial men, or wished to relieve their own estates—would devolve. The clamours I could not have drowned, but I could have disregarded them; and I certainly could have succeeded in obtaining increased jummas from some estates to answer equivalent decreases in others, if I had thought it proper to keep the Government demand at the full amount on the whole zillah, and to disappoint the people, who had been taught to expect great advantages from the revision of settlement.

Consideration whether the interests of the State have been duly regarded, and remarks on Mr. Commissioner Traill's assessments.

IX. In regard to the question of whether the interests of Government have been fairly considered, and whether a higher revenue than that of the last assessment ought not to have been fixed by me, I can only point to the periodical increases which have taken place since the year 1815; and to state that although I fully believe Mr. Traill, with his great zeal and abilities, and vast influence over the minds of the hill people, would have been *able*, notwithstanding his own

recorded doubts on this point, to present to Government his usual comparative statement shewing an increase to the revenue of the State; I came to this province with different instructions, and had been taught that the Government demand ought to stop somewhere, and that the eighth settlement was a very good opportunity for putting a limit thereto. The late Commissioner Mr. Traill, concluded his last revenue report, dated 24th December, 1833, with the following emphatic words: "The total amount of revenue of the province of Kumaon, inclusive of every branch of receipt, may be now stated at rupees 2,34,410 agreeably to the undermentioned details;

| | | |
|---|---|---|
| "Land Revenue, .. .. .. | Rs. | 2,15,745 |
| Abkaree and drugs, .. .. | „ | 2,157 |
| Farm of jungle produce, .. | „ | 6,958 |
| Stamps,.. .. .. .. .. .. | „ | 9,650 |

"The total revenue realized in 1815 from every source amounted to rupees 1,17,730 exclusive of transit duties since abolished."

To his praise be it! and also that he found the province (especially the Gurhwal portion of it) fast falling owing to the tyranny of its late rulers into a depopulated desert, and that he left it a comparative paradise, with its inhabitants invoking blessings on his name, and on that of the Government which he represented. The duty of his successors was, it appeared to me, rather to consolidate the good that already had been done, than to attempt, with less ability to carry it out, an imitation of the only measure, which, if not originally of a doubtful character, had at least been pursued to its legitimate limits.

Observations on the extension of the period of Settlement to 20 years, with quotation from Mr Traill on the subject Opinion as to the stability of the revised arrangements.

X. The extension of the period of settlement to 20 years, as before hinted, was not quite satisfactory to some of the pudhans, and their feeling of faint-heartedness and distrust as to their future resources, would undoubtedly have operated in a measure against any general increase to the Gurhwal jumma. The late Commissioner, Mr. Traill, was indeed of opinion that such a measure would be followed by a loss of revenue, and recorded his sentiments on the subject to the following effect: "From the facility with which new locations are here obtainable, the habits of the cultivators are extremely unstable and migratory. Vacancies arising from desertions are not readily filled by new tenants, while the general poverty of the malgoozars and te-

nantry renders them incapable of meeting from their own funds the additional burthens entailed by such desertions. In these cases the lease would be thrown up, and remission in the demand would be indispensable, to save the village from total desertion; at the same time no advantage could be taken of the growing improvement in other villages. It may be doubted whether the malgoozars in these districts would willingly engage for so long a period, unless the tenants of their respective villages should be considered as parties in the engagements, and remain bound for the same term. Under the Goorkha Government, when a fixed village assessment was promulgated, the above principle was fully recognised, and the claim of the malgoozar followed his tenant wheresoever he might emigrate."

After this lugubrious prophecy of so experienced a functionary, it seems only necessary that I should here state my own opinion, as to the stablility of the settlement which has been now made. When I first arrived in Gurhwal, and had heard, and in part seen, the revenue circumstances of the district, I came to the conclusion that the new assessment for the long period which I was about to make, would fall short of the former one by at least 5,000 rupees. The decreement actually incurred during the course of the settlement has been only rupees 701. In the same manner Mr. Traill, doubtless, thought that his last assessment in Kumaon Proper was only good for five years, and yet, except in the case of the terrai farms, it has already lasted nine years with hardly one balance. When, therefore, I now record my notion that between this date and 1860 A. D., by which time every lease in the pergunnahs under report will have expired, reductions and summary settlements to the extent of from 1,500 to 2,000 Rs. decrease, not compensated by the additions to the revenue resulting from nia-abad leases, may possibly be found necessary, I may be only registering my prophetical inefficiency. But there really exist some causes, the operation of which might bring about the result contemplated. Among them may be mentioned. *First*—The sudden or gradual desertion of villages, owing, to the loss of life and bodily injuries inflicted on the inhabitants by tigers, bears and leopards; to the diminution or loss of cultivation, by the constant incursion into the fields of deer and other animals from the forests; and to the effects of disease (like the Budhan fever, for instance, and the late fatal illness at Dhunpoor,) prevailing among the inhabitants. *Second*—The falling waste of dhaklee mouzahs, from the migratory and fickle character of some of the paeekhast cultivators. *Third*—The remission or reductions of demand, rendered necessary by

murrains among the cattle, by seasons of drought, and by loss of arable land from floods, landslips, and in the snowy range avalanches. To these may be added, *Fourth*—Moral causes, which sometimes lead to the desertion of estates: crimes, quarrels, loss of caste, and consequent dishonor, panics, and last but not least superstition, with its train of imaginary evils, witchcraft, ghost, fairies, curses of fukeers, and the like. Some villages will also die a natural death from the extinction of the few old people who now inhabit them, and who have little or no offsprings. Barrenness is far from uncommon among the puharees. But your own observation will have proved to you, that the cause first mentioned is one, which, however little suspected by those unacquainted with the district, is a very serious evil independent of revenue considerations; and though Government have been liberal in the matter of rewards for the slaughter of wild beasts, the people of some parts of the province, even far removed from the plains, are dreadfully harassed by the animals enumerated.

Difficulty in discovering the past revenue payments of villages, especially of dhaklee mouzahs transferred from one muhal to another.

XI. Before closing my general remarks on the subject of the revision of settlement, I would beg to mention that the greatest difficulty was experienced by me in ascertaining the former jummas of mouzahs, and therefore in framing my jummabundee. As in the case of puttee Lohba, pergunnah Chandpoor—puttees Seela, Kourhea, Pynao, and other puttees of pergunnah Tulla Sulan;—numerous separate inhabited villages were, at the past or previous settlements, included in one lease and attached to some particular uslee mouzah. As there were no village accountants, and as very few *phurd phants* or rent rolls were in existence (such documents being in *Gurhwal* almost my own creation), most particular and searching inquiries, and comparisons of accounts, oral and written, became necessary for the discovery of the past and present payments of each particular mouzah, the inhabitants of which may have demanded a separate lease. The last payments of such extricated mouzahs have been recorded in the pergunnahwar statements under the term "*gurphant*," to distinguish them from Government jummas, and to prevent confusion of the two kinds of jummas. To show also the actual comparison of data in its proper place, the alphabetical arrangement of mouzahs has in such cases been departed from, and those to which separate leases have been given, have been placed in order immediately below the uslee mouzah to which the last stood attached. Whenever I discovered that certain dhaklee estates, now requiring separate

engagements, had been in the course of four or five settlements changed from one uslee mouzah to another, then the "confusion became worse confounded," the canoongoes and putwarees entirely lost their wits, and one and all connected with the work tried to pursuade me that the elimination of past payments in such cases was a problem, which could only be solved by supernatural agency, or, if attempted under human means, was just possible in the course of ages. But as I was fully determined to hunt out every jumma, at least through the course of 15 years previous to the revision of settlement, at last energy succeeded to despair among even the laziest of all known amlah, and I succeeded in gathering together the facts which I actually required. Now there is not one revised mouzah, either uslee or dhaklee in Gurhwal, the fiscal history of which is not correctly figured, from the settlement of 1877 Sumbut to the present time, in the Hindee statement corresponding to Form No. 2 of the Board's Settlement Circular, which accompanies every misl. The roobucaree of settlement also carefully traces out and records the earliest history of each mouzah from first to last, in regard to its pudhans, and its changes from dependance on some other mouzah to independence; and again from its solitary position to inclusion among a set of villages; and again to its present state, whatever it may be. There is no great merit in this work, but it may prove some excuse for the delays incurred in preparing the settlement misls for the Gurhwal Collector's office; and the representation of it may be useful in bringing to notice the uncertain and changeable nature of the village responsibilities and tenures of leases, and the scrambling manner in which the revenue has to be collected, for some years after the conquest, in a wild country recently acquired from a disorderly and arbitrary native Government. I may add, however, that not withstanding all the external and nominal changes to which they have been subjected, in many of the well inhabited mouzahs no interference with internal arrangements has ever occurred; and the old village economy, with the single exception of the Government demand being paid to the State through the hands of a stranger, has stood as firm and steadfast as the rock on which the village is built.

Farming Leases.

XII. Recourse to farming leases properly so called has been rarely found necessary in the course of this settlement. It would uselessly prolong and encumber the report, if I forwarded a translation of the list of such leases drawn up by the native office; for, in the scarcity of real *moostajur* malgoozars, they have recorded as such every pudhan who has been elected

or appointed to the management of a mouzah in which he had hitherto no proprietary interest, consequent on the death or absence of the former pudhan, or of his resignation from choice, incapacity, want of means and influence, and similar reasons, and not in consequence of his refusal to engage for the revised jumma on the ground of its being in excess. Wherever the thokedar of a muhal has accepted the malgoozarce pottah of one or more of its mouzahs, owing to the failure in procuring a village pudhan, he has been recorded in the settlement misl as a kind of farmer, in order to distinguish him from the actual proprietors of the village lands. In some of the poorer and less populous pergunnahs the influential thokedars have, during the course of former settlements, continued to increase their proprietary possessions, and to obtain by silent usurpation a title to such acquisitions; merely because no record whatever was at the time taken as to whether they became the holders of the pudhanship because they were by right entitled to the office, or whether they became so because they had been elected or accepted as managers of the estate merely *for the period of the settlement lease.* As instances, however, of farming leases, I may casually refer you to mouzahs Poornoun and Hat Kulecanee, in puttee Pindurpar, pergunnah Budhan, the remarks concerning which will be found in Nos. 23 and 49, of the English village statements; and to the settlement misls of mouzahs Bugolee, Dhonur and Mussoor, of pergunnah Dewalgurh; of mouzah Punnia, and Oodalt, puttee Khatsewn, pergunnah Barasewn; of mouzahs Seela and Bistana, puttee Lungour, pergunnah Gunga Sulan; and mouzah Hunsooree, puttee Chupra Kote, pergunnah Chandpoor. In a few cases the appointment of strangers to the management of villages has been reversed by yourself in the course of appeal from the settlement.

XIII. The general rules, which guided myself and the late Deputy Collector* under my directions as to malgoozaree arrangements, were as follow:

Generals rules adopted for the leasing and mannagement of muhals.

1. The consent of the majority of the shareholders in the appointment of a pudhan remained, as in Mr. Traill's time, the general law.

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* Note.—Koonr Bhugwan Singh, brother of the titular Rajah of Kumaon, an excellent and able man, whose death in 1841 was much regretted.

2. This law took absolute effect in all cases where the existing pudhan had held the appointment only during the period of the expired settlement, and his dismissal was allowed merely on his failing to acquire a majority of votes.

3. When the pudhan had held the office for more than one settlement, he was not removed without proof of fault or incapacity; and in the event of such proof being forthcoming, his nearest heir, or at all events some member of his family most agreeable to the villagers, was held to have the first claim to the appointment.

4. In large villages the shareholders might elect two or more pudhans, each to manage his particular division of the estate, and to collect the Government revenue, and his own dues from the shareholders belonging to his own particular party or clan. In small mouzahs the election of more than one pudhan was discouraged. *The above rules applied to pure bhyachara estates.*

5. In villages where there were few or many hissadars, with the lands not actually divided amongst them, but cultivated by occupant assamees *(khaëkur)*, who were divided among the proprietors, (not unfrequently according to their own selection of masters,) that hissadar malgoozar who was found in possession of the appointment, or who could show the orders of the Court upon the subject, was confirmed, and the claim of his brother shareholders to be admitted to engage with Government was not allowed. But the pudhan in such cases was strictly forbidden to interfere with the assamees of any hissa save his own, he being entitled to collect the quotas of Government revenue from the proprietary shareholders, the latter making their own arrangements for collecting their own quotas from the khaëkurs.

6. The same rule was held good in the case of hissadaree estates, where the lands were actually divided among the proprietors, and where, instead of the khaëkur or occupant, the lands might be found cultivated by paeekhast assamees or by sirtan (paying *sirtee*) renters.

7. The same rule applied to the case of whole sets of villages included in one lease, but with the villages divided among the several proprietors, except where on investigation it might be found that among two or three malgoozars holding

the pottah of a muhal, the villages placed under the mânagement of each co-pudhan were found not to correspond with the proprietary rights. In such instances the pottahs were remodelled, and the villages distributed according to the actual possessions of the hissadars; or in cases of doubt, and pending the decision of the civil court, according to the voice of the occupant villagers. *These last rules apply purely to the cases of proprietary malgoozars, with reference to their position in regard to their brother shareholders.*

8. The individual who on first redeeming a mouzah from waste obtained the first pottah, was considered the sole proprietor thereof; and if he or his heirs were still in possession of the lands, he or they could not be removed from the pudhanship on the representation of the cultivators, or of the brethren who accompanied the pudhan at the first settlement of the mouzah, but who did not obtain the pottah.

9. The claims to the property in, and management of, such nia-abad mouzahs set up by persons (not unfrequently canoongoes, putwarees and their relations) who obtained the first pottah of the estate, but who, on failing to redeem the waste, or from any other reasons, abandoned the mouzah, and at subsequent settlements left the pottah to be given to others, were at once rejected; unless under the most distinct proof of the claimant having continued uninterruptedly to receive some kind of malikana from the villagers, and of the right of the latter to the pudhanship having been always considered resumable.

10. The claims of the thokedar to the pudhanship or proprietary right of nia-abad lands recently brought under tillage, in opposition to the claim of the real clearer of the jungle, were at once dismissed, except he thoroughly proved that he himself had settled the cultivator on the lands, and had incurred expence in their redemption.

11. Such nia-abad mouzahs (rarely paying more than 5 Rs. per annum) have been sometimes included as dakhlees of the mouzahs from which the original cultivator came, and in which his hereditary land exists; care being taken either to record the proprietor as one of the joint pudhans of the whole muhal, or, if he did not require that privilege, to register him as the sole owner of the lands. *Such were the rules of nia-abad villages.*

12. As a general rule, all dakhlee mouzahs were kept with the uslee mouzahs to which they had stood attached uninterruptedly since the settlement of 1880 St., except where, by mutual consent, a separation was agreed upon.

13. No mouzah was allowed a separate pottah if the records shewed that, continuously from 1872 St., or from the very first trace of its history, its union with some uslee mouzah was unbroken.

14. All mouzahs having separate inhabitancies were allowed to engage separately with Government, merely on the expression of their wishes to this effect by the majority of the inhabitants, *if their inclusion in another estate took place only at the last settlement,* except a distinct decree of Court had ordered their inclusion.

15. This rule equally applied to the case of non-proprietary communities occupying the land, but acknowledging some external superior; that is, if the khaëkurs proved that previous to the last settlement they had enjoyed the privilege of having their own village pudhan, they were now permitted to elect one under the same rules as those made for bhyachara mouzahs, which they often resemble in all but the name.

16. In the case of mouzahs having remained dakhlee to some other since the 1880 St. or 1885 St. settlement, their claims to a separate engagement were favorably considered, whenever inquiry proved that their original absorption was owing to some temporary cause now no longer existing, or to the prayer or consent of the inhabitants, and not to any binding decision of authority. If however, owing to the conjunction of the estates, a great commingling of rights, interests and possessions had occurred, a separate lease was not granted, but the measure of appointing an additional pudhan selected from among the villagers of the dakhlee mouzah was preferred. *These rules were for the adjustment of cases relating to uslee and dakhlee mouzahs.*

17. *The remuneration of pudhans,* whether in land or dues, or both, was left to the mutual agreement of the parties, and where they could not agree, to a decision by punchayet. The pudhancharee, or huq pudhanee, sometimes called "jetounda" lands, were given over rent-free to the malgoozar; but the quantity was fixed according to the actual

facts, and not according to any arbitrary rate on the area of the whole mouzah as formerly; for such allotment, though duly recorded in the periodical settlement books, always remained a dead letter.

18. Where no huq pudhanee lands were found to exist, none were newly created, except by the consent of the villagers; but if the customary dues were found to be too small, a money equivalent of about one rupee for every sixteen rupees of Government reveuue, was recorded as the right of the pudhan.

19. Owing to the republican character of the communities, and the strong opposition made to all arbitrary measures, the enforcement of the last mentioned right, by compelling the shareholders to sign an agreement against their own wishes, was not effected at the time of settlement, but was left to the course of law.

20. With the exception of general rules concerning the public service, the instalments of revenue, and the management of "*unbhunta*" or undivided, and "*lawaris*" or unowned lands, and the rights of pasturage, the actual paper agreement taken from the shareholders corresponded exactly to their own system of administration and liabilities, and those discontented with the arrangements, and not signing the deed, were left to take their remedy, or to be sued, at law.

21. The villagers were not allowed to vote away, or otherwise interfere with, the actual possession of their proprietor malgoozar acquired during his pudhanship, in the case of the said proprietor being now by the operation of the general rules ousted from the internal management of the mouzah by the substitution of a village pudhan in his place.

Reference to the modification and exceptions to the above-mentioned rules, as known to the Commissioner.

XIV. The course of appeals, whether from myself as Settlement Officer, or in ordinary course from the judicial decisions of the Senior Assistant of Gurhwal, will have brought the working of these rules, *with all their numerous modifications and exceptions*, before you; and in some of the pergunnahs (Chound Kote and Mulla Sulan more particularly), I may truly say that the settlement has been made, or at least remodelled and improved in a great measure, by yourself, and that your opportunities for observing the system attempted to be delineated in the above rules, have been greater than my own.

Boundaries of Estates, and settlement of disputes concerning them.

XV. Boundary disputes in Gurhwal were found of far less frequent occurrence, than at an early period of the settlement I had anticipated. At least three-fourths of the boundaries have been settled without the intervention of authority. In such cases the *razeenamahs* of the parties have sometimes been separately filed; but in general the *chuknamah*, or sketch drawn up by the canoongoe for each village, uslee and dhaklee, showing its boundaries on every side, has been attested by the pudhan of the village delineated, and by the pudhans of each village lying on its borders. In the book of "great measurement," as it is called, drawn up by Mr. Traill's orders for the whole province, the boundaries were described; but this record in no instance showed on what grounds, and by whose attestation, the description was entered. Accordingly the native officials who prepared the work in question, and whose seals are attached to each copy thereof, are often accused of having made a false record. The present plan has this advantage over the former, that there is now forthcoming for every mouzah a document accompanied with the proper attestations, showing the actual determination of the boundaries by the people themselves at a given period. Cases of dispute were decided by punchayet, according to the spirit of the Board's instructions, chiefly under the superintendence of the canoongoes. Along the line of the Kumaon frontier, and near Sreenugur, some of the disputes, being virulent and difficult of settlement, required their adjudication by myself or by the Deputy Collector. Mr. Commissioner Traill also, during the long course of his administration, had himself decided on the spot numerous boundaries, and such decisions were notorious and final. The fyzulnamahs of the punchayet, with all the proceedings connected with them; were drawn up with proper attention to forms; and such misls, together with the razeenamahs and chuknamahs above described, have been for some time separately forwarded to the Gurhwal Record Officer at Paoree. Actual demarcation of boundaries by stone *chabootras* always took place, whenever recourse to a legal settlement of disputes had been found necessary. But in the case of amicable agreements among themselves, such demarcation, though always recommended, was not insisted on. Indeed, on account of the villages being placed in such scattered situations, and being so numerous, it would have been very difficult to find officials adequate to superintend this kind of work; and the progress of it would, undoubtedly, have excited, in many instances, the very doubts and disputes, which the measure was intended to guard against. In the

Gurhwal mountains, moreover, nature herself still prescribes boundaries not difficult of discovery, and she represents, in distinct and notable characters to the eye, the limits of men's respective dominions. High peaks and ranges, forests, rivers, rocks, glens, and ravines are at present sufficient landmarks for the simple and peaceable Gurhwallees, and will be so still till the progress of population and agriculture shall bring them nearer in resemblance to their Kumaon neighbours; who, in Pallee and other parts of the country, have partitioned among themselves every foot of land, and whose terraces of cultivation extend often uninterruptedly from the very summit of a mountain to its base. In some parts of Barasewn, Chound Kote, and the northerly puttees of Tulla Sulan, the Gurhwal hills resemble in this respect the fertile parts of Kumaon; and there, as a matter of course, the contentions concerning boundaries were most frequent, and their adjustment most difficult. At the time of settlement the Gurhwallees of every pergunnah were distinctly informed—that, even where no demarcation had been insisted on, the present determination of their respective boundaries was final—that no further discussions on the subject would in future be allowed—and that henceforth the presentation of petitions referring to dispossession of one village by another, would generally end by involving some party or other disagreeably in the proceedings of the Criminal Court.

Right to waste lands, pasture ground and forests.

XVI. Large portions of waste land, including whole ranges and their vast forests, have been included from olden time in the boundaries of adjacent villages, though not included in their recorded *ruqba*. No interference with this nominal allotment of waste (except in the case of the terrai lands) has been attempted at the present settlement of Gurhwal. Such a division has been found useful in giving separate tracts for pasture* for the cattle of different villages; but the inhabitants have been strictly forbidden, and the prohibition is particularized in the pudhan's pottah, and also in the several ikrarnamahs signed by the shareholders of villages, from levying dues for the privilege of grazing within certain boundaries, unless the custom of paying and receiving them has been immemorial; the burden of the proof of this resting with those who demand such payments. Owing to the ignorance and re-

* The Gurhwallees do not migrate annually to the terrai to graze their cattle; their own hills affording sufficient pasture.

tarded civilization of the communities, the absence of village accountants, and the great desire that I all along felt to leave the people as much as possible to themselves, and to inflict on them as little as possible the visitation of native officials, or the necessity of their own personal attendance at tuhsildarees and kutcheries merely with the view to the manufacture of certain documents and statements, the record of village administration must necessarily be imperfect—and I hope that this report will be considered in a measure *declaratory*. I therefore take this opportunity of asserting, that the right of Government to all the forests and waste lands not included in the assessable area of the estates, remains utterly unaffected by the inclusion of certain tracts within the boundaries of mouzahs—and that no one has a right, merely on account of such inclusion, to demand payment for the use of pasture grounds, or for the permission to cut timber or firewood. Neither does such inclusion interfere necessarily with the right of Government to accept offers for nia-abad leases. But as ordered in the case of the terrai forests, so in the hills (where, too, zumeendaree claims are rare), the inhabitants of the village most adjacent to the tract, or having it recorded within their boundary, should have the first refusal of all such leases; and no grant of the kind should be allowed within a certain distance of the cultivated and culturable waste lands of inhabited villages; the distance to be fixed by the district officer, after receiving the report of the local putwaree and canoongoe, as to the position and extent of the proposed clearing. If proper attention is paid to the subject of waste lands in Gurhwal, and every application for the privilege of redeeming them be carefully considered, and decided on with reference to the abovementioned declaration now made by the Settlement Officer, I am of opinion that the prosperity of Gurhwal, and the advance of its population and agriculture, and finally of its revenue, will be for the future even more satisfactory than during the years that followed the expulsion of the Goorkhas, and the return of the peasantry to their ancient homes. In every puttee there are one or two villages very thriving in character, and with surplus members who are available to become paeekhast cultivators of neighbouring estates. I have purposely, in the wilder districts, (Chandpoor, Budhan, Chupra Kote, and lower Tulla Sulan, for instance,) left such villages lowly assessed in order to increase their wealth, and render them reservoirs, whence its currents can flow and fertilize the vicinity. Let the surperfluous members of such communities be distinctly told, that a good title will be given with the several patches of fine redeemable land in the forests, and that all fictitious claims to monopoly of the waste have now

been repudiated as an usurpation of Government rights, and as only tending to injure the country by increasing the tigers and bears; and I am sure that the offers for new lands will increase ten-fold. The practice here pursued, of the European officer himself spending a large portion of the year in moving about the district, will enable him to make the nia-abad settlements almost always himself; and I hope I shall be excused for urging on those who may henceforth be connected with the administration of Gurhwal, the immense importance of such personal investigation and arrangements on the spot.

Assessable area of estates and measurement of lands.

XVII. It is now necessary to declare what is meant by the assessable area of estates, what actual facts are represented by the land set down in the statement as cultivated, and culturable waste. As comparison of revenue rates on the land formed, as alluded to in paragraphs 5 and 6, but an inconsiderable element in the calculation of the Government demand, I shall not on the present occasion reiterate what has been often and often reported as to the nullity of the measurement (and consequently of the resulting record) according to the system of *beesees* and *nalees*. Mr. Traill's statistical report is sufficiently full on the subject of the measures which exist and existed in this province, and there it is also stated, that "the adoption of so uncertain a standard was ascribable to the nature of the arable land, the actual measurement of which would have required greater perseverance and science than the natives of this province ever possessed." The beesee is equal to 20 pathas. The *patha* of Gurhwal, corresponding to the *nalee* of Kumaon, is a measure of seed with a capacity of about two seers; and in estimating the number of pathas in any portion of land, the calculation refers to the quantity of seed (wheat being the usual grain supposed) required to sow it. "The actual extent, however, varies according to the quality of soils as the grain is sown much wider in poor lands near the summit, than in rich lands near the base."* *Ooperaon* is the term applied to high land and *tullaon* to low land, but in Gurhwal the word "seera" is only used to represent land actually irrigated, and not land for which the means of irrigation are available by the turning off of a stream or spring, and the formation of a water-course. In Gurhwal, as in Kumaon, there are numerous denominations of land, but the *jhoola* was and is the chief measure, differing in value according to local usage and the various classes of landholders, but in every instance exceeding in quantity one beesee, and measurable by it. In 1880 St.

* Traill.

Mr. Traill reduced all the accounts of ruqba to the standard of the beesee. A survey, as it was called, of every village took place; the result of this measure is the book of great measurement before alluded to. In addition to this at the periods of assessment in 1880, 1885, and 1890 respectively, settlement books were made, and these showed the division of the ruqba into "abad," "wyran," and "huq pudhance;" by "wyran" is meant the culturable waste lands adjoining the cultivation, including fields formerly cultivated, but now abandoned. No actual measurement ever took place, but every *thoke* or local division of each estate was supposed to be examined by the Surveying Officer, and the number of nalees in it was guessed at. Opposite each thoke was placed the number of nalees, and the addition of the nalees of all the thokes showed the number of beesees in the estate. This loose method of measuring superficial quantity is here known by the appropriate term of "*nuzzur andazzee.*"

The area shewn in my village statements is only so far better than that recorded in former settlement books, that more pains were taken and more time spent in ascertaining the comparative quantity of cultivation and waste. The quality of the soil, and the kind of crops grown, were also noted previous to the formation of the present settlement.

A regular scientific survey of the province was at one time thought of by Mr. Bird, late Member of the Board. I knew that, in Gurhwal at least, there would be no increase of revenue, consequent on the knowledge obtained of the quantity and quality of land in estates; and I shrunk from recommending so expensive, and, owing to the nature of the country, so tedious an operation. In 1832, Mr. Commissioner Traill fixed by authority the quantity of land in horizontal measurement legally contained in one nalee; and the result of a patient investigation into existing differences, and a careful comparison of various answers to his inquiries, was the declaration of the following official statement, viz.

| | *Yards.* | *Square Yards.* |
|---|---|---|
| 1 nalee or patha in whatever land, | 20 by 12 | = 240. |
| 20 nalees or one beesee, | 240 by 20 | = 4800 (less by 40 than an English acre.) |

Quotation from a note by Mr. F. Currie on the subject of the Gurhwal Settlement.

XVIII. I beg to conclude this part of the subject with the following extract from a note on the Gurhwal Settlement, kindly drawn up in 1838 by Mr. F. Currie, now a

Judge of the Sudder Court N. W. P.,* whom I consulted on various embarrassing points connected with my work.

"The record of measurement of the province has been accurately described by Mr. Batten, in his letters to the Sudder Board. With reference to the process pursued in forming this record, it is obviously vain in discussing it to talk about the difference between a "beesee" and a surface measurement, as if this were either one or the other. If a fair average were ascertained of how many fold a beesee or patha of seed grain of each description could yield—and then a correct statement of how many beesees of each description were actually sown in a village in a given year were formed—a new measurement would be obtained, and a fair criterion whereon to ground an assessment might be arrived at; or if the quantity of land which a beesee would sow, and the actual quantity of beesees sown in any village were ascertained, a standard whereby to form proceedings would be found, and it would signify little whether the amount of land or quantity of grain were the nominal standard; but in this instance *the surface of the soil* was subjected to a nuzzur andazzee estimate, and the extent of it recorded in *an arbitrary amount of beesees.* It is evident that such a process, even supposing the "nuzzur andazzee" to have been conscientiously conducted, is no measurement at all, either of grain or of land; and that on such record alone, without further investigation and inquiry, it would be impossible to ground settlement proceedings, or under any circumstances to draw out from it a table of rules: but when it is notorious that the nuzzur andazzee record was dishonestly made by the subordinates employed—and when it appears (*I myself read the order*), that the Commissioner, on receiving the statement regarding a large tract (5 pergunnahs) in the province, declared himself dissatisfied with the result of the inquiry and directed that *the areas of all the villages in that tract should be doubled,* and that in the record doubled they were accordingly—it is, in my opinion, obviously necessary that in any proceedings which may now be held, the Settlement Officer should reject entirely the false estimate recorded in 1880 St., and should pursue some other course for ascertaining the extent and capabilities of the villages to be subjected to settlement arrangements."

Tenures.

XIX. I have not attempted to draw up a statement according to form No. 23, of the Board's Settlement Circular, shewing the te-

* *Note.*—1849,—Sir F. Currie, Bart., Member of Council.

nures on which the muhals of Gurhwal are held. In Kumaon Proper there is scarcely one estate which has not become a subject of litigation in the courts, and proofs are constantly forthcoming of the state of property, both in regard to name and title, and to possessions. In Kumaon, too, many of the principal landholders are non-resident brahmins (joshees and others), the descendants of those to whom the native rulers gave grants of land; and although from the custom of the country the tenantry are inclined to resist all payments, either in money or kind, to the proprietors, which have not some reference to the amount of revenue to the State paid by the latter; still the existence of rent as distinct from revenue, and the appropriation of a large share of the gross produce by others than the occupant inhabitants, point to the zumeendaree tenure, both pure and imperfect, as bearing an ascertainable and definite proportion to the other classes of tenure. In Gurhwal, owing to the comparatively small value of land, the scantiness of population, and the almost entire dependance for their position and wealth, even of the most considerable landholders, (as for instance the Bhurtwal family in Nagpoor and the Uswal family in Seela,) on the actual influence which they may happen individually to possess over the agricultural communities, and not on any nominal legal rights—the enforcement of which, even if possible, would soon leave the claimants without a tenantry, and would only enrich their neighbours—hardly one estate, with the exception of the nia-abad muhals, could be correctly entered under the head of *pure zumeendaree;* while the classes of tenure which the Board call by the name of imperfect putteedaree, are found in some parts of the districts to exceed in numbers the pure bhyachara tenures, which again exclusively prevail in other parts.

Mr. Traill, in his statistical report, asserts "that a large portion of the province, not less probably than three-fourths of the villages, are wholly cultivated by the actual proprietors of the land, from whom of course nothing can be demanded beyond their respective quotas of the village assessment; and that in those cases the settlement is literally speaking ryotwara, although the lease is issued only in the name of one or at most of two shares in the estate." In Gurhwal this statement is literally true for about three-fifths of the villages, that is, the inhabitants hold the land in severalty under a joint responsibility for the revenue, and pay nothing except their shares of the Government revenue and the customary fees

to the elected village pudhan, who again pays only the fee for ministerial services due to the thokedar. The remaining two-fifths are inhabited by those who, in addition to the above named items, pay certain sums of money, certain portions of grain, ghee and other produce, and a higher rate of customary fees, such as legs of goats, &c., at marriages and other occasions, to the thokedar or seeana in his capacity of hissadar and proprietor, or to those of his family who may possess the proprietary share in their respective villages.

Pudhans.

XX. Before coming to the subject of thokedars, I may here record that, as the general rule, the "pudhan is the village ministerial officer intrusted with the collection of the Government demand, and with the supervision of the police of his village. He is commonly one of the village, appointed with the approbation of the other joint sharers, and is removable for malversation, or at the requisition of the majority of sharers. He collects the government revenue agreeably to their several quotas. He pays also the rent of his own immediate share of the estate. He is remunerated by fees on marriages, and a small portion of land set apart for the purpose. There is no hereditary claim or right to the situation of pudhan, but generally the son succeeds without opposition, unless incapable from youth and want of talent, in which case the sharers are called upon to choose another pudhan from among themselves. Uncultivated lands, which may have not been even subjected to division among the proprietors, are managed by the pudhan, and the rents yielded from their cultivation are accounted for by him to the body of proprietors, who take credit for the same in the quota of the government cess to which they are respectively liable."*

Traill.

Thokedars and seeanas.

XXI. Referring to the abovementioned divisions of the agricultural community, the seeanas or thokedars are divisible into two kinds. *First*, there are those thokedars (sometimes called, in the time of the raja, *lesser seeanas*), who are merely intrusted with the charge of the police in a certain number of villages, who are paid by a fee of one rupee on the marriage of the daughter of each village pudhan, and a leg of every goat killed by the said pudhans; and who, *if they can prove the receipt of such a payment from the commencement of the British rule*, are entitled by the law to receive dues through the pudhan from the village, amounting altogether to a per-centage on the

government jumma of about three per cent. *Secondly*, there are those thokedars, or greater seeanas, who are heads of the proprietary families, whose ministerial duties in reporting offences and casualties, and also the death of individuals without heirs, seizing criminals, searching for stolen property, assisting the government putwaree at inquests, collecting coolies and supplies indented for on the public service, are the same as those of the former class; but who, being descendants of great grantees and officers of the Goorkha time, or that of the Gurhwal rajas, possess much greater influence; who often in the course of the different settlements have engaged with government for whole sets of villages, sometimes for a whole puttee (as in Kourhea and Seela), whose remuneration for ministerial offices has thus become mixed up with their seeancharee and hissadaree rights; and who often possess decrees of court showing the proprietary division into hissas of certain sets of villages between them and their relations, at the same time that the villages themselves have possessed their own pudhans, holding separate malgoozaree pottahs, but together with the villagers acknowledging the right of the seeana to receive a larger sum as seeancharee dues, than those granted to ordinary thokedars. In one or more of the villages included within the thokedaree pottahs, these seeanas and their brethren possess without opposition the lands; and the tenantry, though often hereditary and not removal at will, cultivate such portions only as may be assigned to them by the proprietor, and pay *koot*, or a share of produce, commonly one-third, or a moderate money rent called *sirtee* (whence the name *sirtan assamee* is derived), and in some few parts of the country, chiefly towards the terrai, a certain rate per plough; all these payments being exclusive of *bhet*, *dustoor*, *nuzzurana*, *saugpat*, and other offerings usually made to superiors in the hills.

Classes of tenants. Instances of the operation of the thokedaree or seeancharee tenure in regard to the people.

XXII. There is a class of tenants called *kynees* (vassals), who by theory are subjected to personal service in cultivating the landholder's *seer*, or land which he keeps under his own hands, and in carrying his jhampan or dandee and baggage; but in Gurhwal this class has almost merged into that of the khaëkur, necessity compelling proprietors to give the most favorable terms to all occupants of the land. *Haleeas*, or domestic servants or slaves (chiefly dooms or outcasts), though now by the silent operation of the emancipating spirit of English rule daily diminishing in number, are still found in all principal estates, and these persons perform all the labour of

the fields, required on the private farms of the landholders. In the remaining villages the possessions of the seeana families are less determinate; and the khaëkur or occupant assamee, often asserting his right to be recorded in the rent roll as a hissadar of the land, and not unfrequently as *thhátwan*—that is, the holder of *thhát* or property in the soil—strenuously resisted the claim of any to the proprictorship of the village; declared that the decrees of the court, and the ancient Goorkhalee or raja's sunnuds, had merely reference to the position of the seeana as talooqdar and foujdar, or fiscal and criminal administrator for the district; and, at the time of the settlement, refused voluntarily to sign any agreement for payment of any dues called bhet, dustoor, or *malikana*, which could by any possibility be construed into an acknowledgment of any *malik*. Such cases you yourself have had to deal with in Goojroo and other parts of Mulla Sulan; and have succeeded, where the proprietary rights of the thokedar were fully proved, in allowing the people their separate pottahs for their own villages, and in buying off the thokedar's claim by the substitution of a fixed annual payment in lieu of all mixed seeancharee, malgoozaree and hissadaree dues. In Kourhea, so long as the thokedar held all the villages of the puttee in one malgoozaree pottah, he derived a considerable income from collections under all these latter heads. At the present settlement, under the operation of the general rules detailed in paragraph 13, each village obtained its separate lease and its own pudhan. The son of the thokedar had quarrelled with his father; and to ingratiate himself with the people, promised that if he were elected to the headship he would greatly reduce all demands of the kind. The result of this conduct, and also of the settlement itself, being the first in which a record of rights was brought to the notice of the people, has been almost to oust the father from his thokedaree, and the son has probably raised a republican spirit, which he will doubtless find it himself difficult to allay, and which will seriously injure his own prospects. In Seela I found the people complaining loudly against the distribution of the villages between two brother thokedars, which had been made at the last settlement, because each thokedar had proprietary rights within the other's thokedaree; hence, the villagers were subjected to conflicting claims and double payments, and ceased to enjoy the benefit of an existing law, to the effect, that the same person could not demand both thokedaree and huq pudhancharee in the same village; for in this case the malgoozar and thokedar were separate individuals. At the time of revision I myself cancelled the existing pottahs, and issued new ones, in which the villages

are distributed according to the actual proprietary right of the seeana.

In Lohba, Mr. Traill's last settlement found the villages falling into waste, owing, in reality, to the inability of the pudhans to contend against the ravages of wild animals, and the loss of even the smallest number of assamees from the villages scattered in and about the wild forests of that tract; but owing, in Mr. Traill's opinion, to laziness and a desire to reduce the revenue on the part of the principal landholders. These latter had originally obtained their thokedaree pottahs for managing the lands given in military assignments to the commandants at the frontier post of Lohba fort, and some of them had held commands under the Goorkha Government. The Commissioner considered such pottahs resumable at pleasure, and he accordingly resumed them, and accepted one offer from a farmer (Theproo Negee, of the neighbouring valley of Khetsaree in Kumaon,) for numerous villages, and ordered the thokedaree right (though he issued no new pottah) to be transferred to that individual; he also made him Government putwaree. With all these advantages, however, the farmer failed in restoring the villages to a state of prosperity, the opposition to his management was found unconquerable, and he could hardly collect the Government revenue, much less any thokedaree dues. At the present settlement each village again obtained its separate lease, the farmer was sent back across the Lohba Pass to his own valley, and a fair jumma was fixed for each estate according to the general principles of the new assessment; but the thokedaree rights remained undecided, while every person whose pottah had been resumed, together with a host of others, the descendants of still older thokedars, sprung up to demand a consideration of their claims. These you yourself decided at a period long subsequent to my operations, and the principal of election by the people was that which principally determined your judgment. Wherever no voices were lifted in favor of the restoration of thokedaree rights, there the pottahs remained under resumption. These instances will suffice to show the nature of the thokedaree tenure in Gurhwal. As the business in that district is never very heavy, and has been rendered still lighter by the aid of the settlement records, the Civil Court will have full time for the adjudication of all disputes left undecided by me; and decisions will not be difficult, now that the course of my operations and of appeals to yourself has rendered public and notorious the principles of equity and justice, which should guide the adjustment of all cases connected with these tenures.

XXIII. A few instances will show the actual kind of collections made by the seeanas and hissadars in different parts of Gurhwal.

Instances of the kind of collections made in certain muhals in addition to the Government revenue.

1. Puttee Tulla Nagpore, mouzah Mungoo Khurnolee, jumma 118 rupees, Mungul Sing Bhurtwal and Jeebram Bhurtwal malgoozars and hissadars, Humeer Sing thokedar and hissadar, Jitar Sing hissadar. There are two beesces of land assigned to the malgoozar, and he receives one timashee (three anna piece, five equal to one Furruckabad rupee, and four to one Goorkha rupee, the usual rupee of account) on the marriage of every khaëkur's daughter, and a leg of every goat killed. Owing to the relationship of the hissadars they pay no thokedaree dues. Hissadaree dues consist in the payment to his own hissadar, by the khaëkur on the marriage of his daughter, of four timashees and a leg of every goat he may kill. Humeer Sing receives annually from his khaëkurs two maunds and eight seers of rice, and two maunds and eight seers of barley—Mungul Sing, two maunds and four seers of rice, and two maunds and four seers of barley—Jeebram, one maund and thirty-two seers of rice, and one maund and thirty two seers of barley—and Jitar Sing, two maunds of rice, and two maunds of barley.

2. Puttee Seela, mouzah Barioon, jumma 17 rupees, Ruttun Sing thokedar and hissadar, Anundoo malgoozar and khaëkur. Thokedaree dues accrue from the payment of eight timashees by each khaëkur, on the marriage of his daughter, a leg of every goat he may kill, and a seer of ghee, and from the joint annual contribution of the villagers, of one rupee as nuzzurana, and sixteen seers of grain. There are no hissadaree dues distinct from these. The malgoozar has three nalees of land, receives eight timashees on the marriage of each villager's daughter, a leg of every goat killed, and a seer of ghee in the month of Sawun.

3. Puttee Buddulpoor, mouzah Sonwara Pulla, jumma 10 rupees, Doolub Sing thokedar and malgoozar. The thokedar receives from Goodroo hissadar eight timashees on the marriage of his daughter, a leg and rib of every goat he may kill, and two timashees annually as nuzzurana. The inhabitants of the village make a united contribution to the thokedar of one maund and twenty-four seers of grain. Goodroo, who acts as village pudhan for Doolub Sing, receives the malgoozar dues, viz. eight

timashees on the marriage of each hissadar's daughter, and a leg and rib of every goat killed. He has also ten nalees of land.

4. Puttee Kourhea, mouzah Deodalee, jumma 22 rupees, Bulwunt Sing thokedar, Gungodoo malgoozar and hissadar. The thokedar receives from the malgoozar eight timashees on the marriage of his (the malgoozar's) daughter, a leg and rib of every goat he may kill, one seer of ghee or oil in Sawun, a basket load of Indian corn, a leg of every large deer he may kill, and four timashees as nuzzurana. The malgoozar receives from the villagers similar dues to the above, with the exception of the two last items.

5. Puttee Bijlot, mouzah Putolia, jumma 132 rupees, Kullum Sing thokedar, malgoozar and hissadar, Bhowany Sing, Bishnoo, Mungloo, &c., pudhans and khaëkurs. Thokedaree, malgoozaree and hissadaree dues received by Kullum Sing are not distinct. They accrue from the payment by the khaëkur pudhans of one rupee on the marriage of their daughters, a leg and rib of every goat slaughtered, a load of Indian corn when in season, a seer of ghee in Sawun, an annual nuzzurana of six timashees, and seven maunds and eight seers of grain. The khaëkur pudhans possess four beesees of huq pudhanee land, and receive from the khaëkur assamees the same dues as Kullum Sing but no nuzzurana and no grain.

6. Puttee Khatlee, mouzah Seela Tulla, jumma 36 rupees, Mohendra Sing thokedar, Moortee malgoozar and hissadar, Pudmoo and Bhowany hissadars. Thokedaree dues similar to those in No. 5, but the amount of nuzzurana is two timashees, and one maund and twenty-four seers of grain, and two seers of salt. The malgoozar has eleven nalees of huq pudhanee land. The hissadaree correspond with the thokedaree dues, except that there is no grain, no nuzzurana, and the quantity of salt is only one seer.

7. Puttee Chound Kote, mouzah Anrota, jumma 7 rupees, Doorgadut thokedar, malgoozar and hissadar. The dues are not distinct, but consist in the payment of six maunds and sixteen seers of grain by the khaëkurs.

8. Puttee Odehpore, mouzah Oomrolee, jumma 74 rupees, Mynduroo and Juwaroo thokedars, malgoozars and hissadars. The malgoozaree and thokedaree dues are united, and are derived from the payment by the hissadars of eight timashees on the

marriage of their daughters, a leg and rib of every goat slaughtered, and 16 timashees nuzzurana.

9. Puttee Lungour, mouzah Deeoosa, jumma 90 rupees, Oochhaboo thokedar, Sumsera and Mungloo malgoozars and hissadars. Thokedaree dues are paid by the pudhans, who present on the marriage of their daughters four timashees, also a leg of every slaughtered goat, and 3 rupees per annum. The malgoozars receive from their brother hissadars four timashees on marriages, and possess six nalees of huq pudhanee land.

10. Puttee Uswal Sewn, mouzah Siron, jumma 100 rupees, Abdul Sing thokedar, Bhoop Sing malgoozar and hissadar. The hissadars refuse all thokedaree dues whatever. The malgoozaree dues the same as in the last number.

11. Puttee Putwal Sewn, mouzah Nulyegaon, jumma 55 rupees, Siwanund thokedar, Purmodoo, Gunesa, &c., malgoozars and hissadars. Thokedaree dues arise from a contribution of 32 maunds of grain. Malgoozaree dues the same as those last mentioned.

12. Puttee Chandpoor, mouzah Bhugotee, jumma 171 rupees, Ruttun Sing thokedar, Goolaboo and Lotee malgoozars and hissadars. The thokedar receives 5 rupees per annum from the malgoozar hissadars. The malgoozars possess 11 beesees of huq pudhanee land, receive Rs. 2 from the hissadars on the marriage of their daughters, 8 annas on that of their sons, and a leg and a neck of every goat slaughtered.

13. Puttee Pindurpar, mouzah Bhetee, jumma 55 rupees, Gopal thokedar. Thokedaree dues are paid by the hissadars at the rate of 8 annas per annum, with an additional nuzzurana of 4 annas in Sawun.

14. Puttee Pindurwar, mouzah Puntee, jumma 22 rupees, Juwahir Sing thokedar. The thokedar receives one rupee on marriages, and a leg of every slaughtered goat.

Opinions of Mr. Traill on the hill tenures.

XXIV. The greater part of Mr. Commissioner Traill's remarks on tenures, as found in his printed report, and in subsequent correspondence, refer to the district of Kumaon Proper; but the following extracts from his report to the Sudder Board, of the 2d January 1829, will not be out of place. Mr. Traill himself seems to wish

that the observations therein recorded, should be considered his final opinion.

Para. 12. "The paramount property in the soil here rests in the sovereign. This right is not only theoretically acknowledged by the subject, but its practical existence is also deducible from the unrestricted power of alienation, which the sovereign always possessed in the land. The occupant zumeendars hold their estates in hereditary and transferable property, but these tenures were never indefeasible; and as they were derived from royal grants, either traditional or existing, so they might be abrogated at the will of the sovereign, even without allegation of default against the holder, and without reservation in his favor.

13. "From the extreme attachment of the landholders to their estates, the frequent exercise of such a prerogative would doubtless have been highly unpopular. In the interior it appears to have been unfrequent, as may be judged from the length of time which villages have remained in the possession of the same families. But, in the neighbourhood of the capital and on the border, such arbitrary transfers were not uncommon; and where a provision in land was called for to reward military services, or to remunerate the heirs of those slain in battle it was usually made at the expense of existing rights.

14. "The property in the soil is here termed *thhât*, and grants in tenure of *thhât*, and *Kote*, (the designation under which lands were given to the heirs of those killed in battle,) conveyed a freehold in the soil as well as the produce. Where the land granted was already held in property by others, these occupant proprietors, if they continued on the estate, sank into tenants of the new grantee, who, moreover, by the custom of the country, was at liberty to take one-third of the estate into his own immediate cultivation or seer. Of the remainder of the estate the right of cultivation rested with the original occupants, who were now termed khaekur or occupants in distinction from thhâtwan or proprietor.

15. "Throughout the greater part of the province, as already noticed, landed property has been subjected to few violent changes, and by the process of the Hindoo law of inheritance it has now been reduced to the minutest degree of subdivision.

16. "In such a state of property the characters of landholder and farmer are naturally united, as the former cannot afford to part with any portion of the profit of his petty tenement; accordingly full six-tenths of the arable land are cultivated by the actual proprietors, who may be termed thhâtwan cultivators.

17. "Of the other four-tenths one-half may be assumed for the estates which are cultivated by resident tenants, having no claim to the property in the soil.

18. "This class may be divided into the khaëkur and kueenee or khurnee; the khaëkur has been already noticed, and enjoyed an hereditary though not transferable right of the cultivation: the khurnees were tenants, and settled on the estate by the proprietors, and by long continued occupancy might come to be considered in the light of khaëkurs, from whom indeed they differed little, except in the nature of the rent to which they are liable.

19. "In the remaining two-tenths are comprised the lands cultivated by non-resident tenants or paeekhasts.

27. "When a share in any estate may lapse from death or desertion, it is divided among the remaining proprietors, who become answerable for its assessment; but this responsibility is, generally speaking, far from being deprecated, as the landholders are for the most part anxious to enlarge their petty tenures; as a precaution to prevent such a contingency from becoming individually burthensome, the small hamlets and paeekhast lands are now leased with the uslee village to which they properly attach.

28. "The village jumma is apportioned on the several shares, agreeably to the nominal interest possessed by each in the estate. If any sharer claims an abatement on the ground of deficiency in the portion of land actually in his possession, a measurement takes place, and a record is made of the quantity of land found in the occupation of each proprietor, agreeably to which the future cess is regulated, but without retrospective effect.

29. "From damages by mountain torrents, and from gradual encroachments on the shares of absentees, inequalities of this kind are pretty general, and applications for measurement frequent.

30. "Pleas for abatement on the grounds of inferiority in the quality of a share can very rarely arise, as each individual share comprises its due proportion of every part of the village, good and bad. This class, the thhâtwan cultivators, pay on a general average about one-fifth of the gross produce to Government.

31. "The khaëkur tenant, in addition to the public demand which he pays in money, has to pay to the proprietor as sirtee, bhet and dustoor, nearly another tenth. The khurnee pays in koot agreeably to former rates, which may be taken on an average at one-third of the gross produce.

32. "In paeekhast, no general rule exists, each tenant makes his own bargain; and as the competition for cultivators exceeds the demand for land, the terms are always in his favor. The rent, invariably in money, is somewhat lower than that paid by the khaëkur.

33. "The share of the gross produce, as enjoyed by the different classes of cultivators above enumerated, may be summed up as follows:

| | |
|---|---|
| "Thhâtwan cultivator, ..... | 80 per 100 |
| Paeekhast tenant, ..... | 75 per 100 |
| Khaëkur ditto, ..... | 70 per 100 |
| Khurnee ditto, ..... | 66 per 100" |

Remarks on the above-made quotation.

XXV. I have made this long quotation from the best of Mr. Traill's settlement reports, because in the first place, I wish literally to fulfil the promise made in paragraph 4, of saving superior authority the trouble of referring to past correspondence; and in the second place, because from obvious reasons the opinions of Mr. Traill on any subject relating to this province, must be of higher importance than any which I can offer.

Record of Settlement.

XXVI. If circumstances had permitted me, personally and continuously, to superintend on the spot the settlement operations in all instead of a few of the pergunnahs of Gurhwal, I think that I could have succeeded in completing the general remarks in English, accounting for the revision of settlement in each muhal. But not only has my appointment as District Officer in judicial and general charge of Kumaon Proper during the last three years, left me without time for the full discharge of set-

tlement duties, and placed me (except during occasional hurried visits) 50 miles from the nearest part of Gurhwal; but also the consequent circumstance of the actual assessments and settlement arrangements having been made by the late Deputy Collector, and in a few instances by the Gurhwal Assistant, though in accordance to principles and rules laid down by myself, has deprived me of the means of recording with exactness such observations as are usually made by Settlement Officers. Four pergunnahs Pynkhunda, Budhan, Chandpoor, and the greater part of Tulla Sulan, remarks on the village settlements have been made by myself, and copied in the village statements which were forwarded to your office. In other pergunnahs, Nagpoor, Gunga Sulan, &c., English remarks have not been recorded; but English statements have been prepared according to forms Nos. II. and III. of the Board's Circular Orders, modified to meet local peculiarities. These show, in the case of every settled muhal, the past and present estimate of area; the detail of assessable land of each well known kind of soil; the occupation of the land by the pudhans, coparcenary shareholders, cultivators having right of possession, and other classes of cultivators, according to their own showing; the former assessments with the history of the dakhlee lands; the statistics of the new settlement; and finally the statements of possessions and responsibilities prepared by the people in the form of the rent roll of the estate. In Dewalgurh, Chound Kote and Mulla Sulan, these English statements, owing to the delay in preparing the Hindee statements, consequent on the unfortunate death of the Deputy Collector in the midst of his unfinished work, have not been filled up; but the clerk of the Gurhwal Assistant can easily perform this task within the present year. * The settlement misls for the last mentioned pergunnahs containing the Hindee village forms, will all be transferred to the Gurhwal office, before the close of the present rainy season; and the officer in charge of that district will then possess, for these as for the other pergunnahs: *First*,—the boundary misls as mentioned in paragraph 15. *Secondly*,—the roobucarce or record of settlement, showing the past fiscal history and management of all mouzahs, uslee and dakhlee, and all the new arrangements. *Thirdly*,—the ikrarnamah or agreement of the inhabitants in regard to the remuneration of the pudhan, and the collections of all sorts to be made under the heads of thokedaree, secancharee and hissadaree dues; and also binding them-

* English mouzahwar pergunnah statements have been prepared for every division, and have been forwarded to Paoree.

selves down to a conformity with certain rules in regard to the public service and general management. *Fourthly,—the Phurd Phant, showing the name of the pudhan ; the distribution of the revenue payers among the several pudhans, where more than one are elected;* the *quotas of revenue payable by the several share-holders or occupants ;* the *division of the non-proprietary tenantry among those recorded as proprietors :* and *the names and liabilities of the Paeekhast and other cultivators whenever discoverable.* In addition to these documents, the numerous petitions presented, depositions taken, and orders passed during the course of the settlement on miscellaneous matters, forms separate files of proceedings, which have been transmitted to the Gurhwal Record Office. Thus questions henceforth arising, especially in regard to claims and possessions, will become easier of decision, owing to the existence of proofs showing a certain state of affairs at a certain period; and I should think that the Civil Courts in Gurhwal will now rarely be reduced to the necessity of pursuing their investigations in suits connected with the land, to a period anterior to that of the settlement proceedings. At first, some difficulty was experienced in inducing the people to form the revenue and rent roll just described, but soon its value became apparent; and although, as fully reported on another occasion, the periodical correction of these rolls cannot, and ought not, in Gurhwal, to be enforced with such rigid attention to form and time as in the plains' districts, which enjoy the benefit of educated village accountants; still the people themselves may be expected to consider this record as more and more important, the more its advantages in placing their liabilities on an exact and public basis become in the course of time well known and proved. The statement of beesees and nalees in the possession of each individual is of course fictitious, as it has reference to an account of measurement not founded on facts; but still, as in every case it has been drawn up with the cognizance of the villagers, though, owing to their ignorance, not always by themselves and without official aid—and as this statement is to be found in every copy of the Phurd Phant opposite the names and revenue liabilities of the share-holders and khaëkurs, these latter have always an opportunity of offering any objection to it which they may consider necessary, and of suggesting any corrections for the better assertion of their rights. As a representation of *comparative* possessions, the non-reality of the data being the same for all concerned, the division of the beesees and nalees as shown in the rolls may still be considered as not utterly without value. On the whole, I consider the first formation of the Phurd Phant for every village in Gurhwal as the crowning good of the revision

of settlement under report; and I contemplate this creation with the more satisfaction, from the knowledge which my experience in Kumaon gives me of the difficulties, embarassments and actual evils arising from the scarcity of such documents in this part of the province, and the arbitrary and unsatisfactory manner in which the few that are forthcoming have been prepared.

Chokeedars and Coolies' supplies.

XXVII. I may conclude this part of the subject by stating that there are no regular village chowkeedars in Gurhwal; though *puhrees*, corresponding somewhat to *goorraits*, are occasionally found remunerated for their services as messengers, &c., sometimes by portions of land, sometimes by fees, and sometimes by both. Had I been able to conduct the settlement myself throughout the district on the spot, I should have paid more attention to the subject of these village servants, (among whom may also be mentioned tailors and masons, the latter constantly employed in repairing the stone walls of terraces,) and a record concerning them would probably have been made. The subject, also, of forced labor for the repair of roads, carriage of baggage, &c., would have met with attention; and the quota of coolies and supplies demandable from each village, according to its capabilities, for the public service, would have been duly registered. As it is, I beg to commend both these points to the attention of those, who are now and may be hereafter placed in charge of the administration of the district, while I myself in the Kumaon settlement shall take care to place, if *possible*, these matters on a correct and fair footing.

Maafees and goonts, or lands rent-free to individuals, or held by religious establishments.

XXVIII. The figures in statement No. I. representing the quantity of unassessed land in beesees, whether forming part of khalsa villages and measured within their area, or whether whole villages, are *only an approximation to the truth*; and Captain Huddleston is at this moment employed in ascertaining the actual facts of the rent-free tenures. On this subject I beg to refer to my letter, No. 22, of the 18th December, 1837, to the address of the officiating Commissioner of Bareilly, and to the correspondence which arose therefrom, terminating in distinct instructions from the Governor General issued to the Sudder Board of Revenue, in a letter from Mr. Secretary Thomason, dated 18th July, 1838. I do not consider it necessary to include a report on this subject in my account of the

revision of settlement. The maafee holdings only amounting to 163 beesees in the whole district, require no separate notice from me. The *goont* lands amount to 13,651 beesees, of which 913 form *parts* of villages which pay revenue to Government for the remainder of their lands. Of the small portions of land which make up this small total sum, perhaps nearly one-third may be considered as waste, and two-thirds are actually cultivated, and the rents assigned to the great temple of Budrinath, or to local shrines. If the lands dedicated to the latter objects were resumed by authority, I am of opinion that the people would not consent to pay any addition of revenue, at all of proportionate to the nominal enlargement of their assessable area; and even if an enhanced jumma were obtained, the people would still tax themselves with the maintenance of the shrines and their priests on the ancient footing. The resumption of the *entire goont villages* would, of course, add somewhat to the pecuniary resources of the State; but, though under a liberal and prudent Government I contemplate no measure so harsh and impolitic, I may here record my belief that the disgust occasioned by the resumption of religiously assigned lands in Gurhwal, would not be confined to this province, but would spread throughout all India, every quarter of which sends forth its annual pilgrims to do homage to the sublimity of nature at the sacred sources of the Ganges.

KUMAON AND GURHWAL SETTLEMENT OFFICE: *The 10th August*, 1842.

I have the honor to be, &c.,
(Signed) J. H. BATTEN,
*Settlement Officer.*

## ABSTRACT.


| | | |
|---|---|---|
| Para. | 1st. | Introduction. |
| Ditto | 2nd. | General Statements. |
| Ditto | 3rd. | Former Statements and Abstract of present Settlement. |
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| Ditto | 5th. | History of the new Settlement. |
| Ditto | 6th. | Principles of Assessment. |
| Ditto | 7th. | Physical peculiarities affecting the Settlement. |
| Ditto | 8th. | Moral circumstances affecting the mode of Settlement. |

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| Para. | 9th. | Consideration whether the interests of the State have been duly regarded, and remarks on Mr. Commissioner Traill's assessments. |
| Ditto | 10th. | Observations on the extension of the period of Settlement to 20 years, with quotation from Mr. Traill on the subject. Opinion as to the stability of the revised arrangements. |
| Ditto | 11th. | Difficulty in discovering the past revenue payments of villages, especially of dakhlee mouzahs transferred from one muhal to another. |
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| Ditto | 15th. | Boundaries of estates and settlement of disputes concerning them. |
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| Ditto | 19th. | Tenures. |
| Ditto | 20th. | Pudhans. |
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| Ditto | 22nd. | Classes of tenants—instances of the operation of the thokedaree, or secancharee tenure in regard to the people. |
| Ditto | 23rd. | Instances of the kind of collections made in certain muhals in addition to Government revenue. |
| Ditto | 24th. | Opinions of Mr. Traill on the Hill tenures. |
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| Ditto | 27th. | Chokeedars and Coolies' supplies. |
| Ditto | 28th. | Maafees and goonts, or lands rent-free to individuals, or held by religious establishments. |


(Signed) J. H. BATTEN,
*Settlement Officer.*

# APPENDIX.

1. I now proceed to describe the tract of country which has been subjected to the operations under report, and to offer such general remarks on the people and the revenue as may be suggested by the course of the description.

British Gurhwal.

2. British Gurhwal* may be roughly calculated as being 100 miles long by 50 broad, or about 5,000 square miles in extent, of which one-fifth, if not more, belongs to the snowy range. It lies between the latitudes 29° 30′ and 31° 2″—and the parallels 78° 5″ and 79° 50″ of longitude; but as the shape of the country is nearly a rhomboidal parallelogram, of which the long sides extend from the snowy range to the plains in a south-westerly direction, only a portion of each of these longitudes is included within the district. The boundaries are as follow: on the west, the Mundakhnee branch of the Ganges, and the high range along its western bank from Kedar Nath to Roodur Preeag, and thence the Aluknunda to Deva Preeag, and thence the Ganges, properly so called, after the union of all its branches to 20 miles below Hurdwar, separate the district from the Raja of Gurhwal's reserved territory and from the British districts of Dehra Dhoon and Suharunpoor. On the north, the Himalayan peaks and passes separate it from Hoon-des.† On the east, an imaginary line drawn from the snowy peak called Trisool to the Pindur river, 20 miles below the glaciers at its source; and thence a varied line drawn in a westerly, south-westerly and southerly direction by Budhan and Lohba forts, and crossing the Ramgunga river near its numerous sources, and again re-crossing it at the upper part of the Patlee Dhoon, divides Gurhwal from Kumaon, the boundary in the terrai being the Kotee Rao torrent immediately after its exit from the hills. On the south, is the Bhabur or terrai; and there, except in the case of talooka Chandee on the Ganges, which forms

* This district is sometimes called 'Gurh,' and the name is supposed to be derived from the number of hill forts with which the country is studded.

† Hoon-des is the local name of that part of Thibet which borders on Kumaon and Gurhwal.

a small triangular corner separated from Bijnour by the Sawasun stream, the actual base of the lowest range of hills, with only a few level gorges running up between some of the projecting points of the mountains, is the boundary between this district and zillah Bijnour.

Pergunnahs.

3. The purgunnahs are ten in number, viz., Pynkhunda, Budhan, Nagpoor, Chandpoor, Dewalgurh, Barasewn, Chound Kote, Mulla Sulan, Tulla Sulan, and Gunga Sulan; here placed according to the position from north to south, but in the statements numbered according to the order in time of their re-settlement. An eleventh pergunnah, Dusoulee, exists between Nagpoor and Budhan, but this is held in rent-free assignment by the temple of Budrinath, the proceeds thereof defraying part of the suda-burt expenses of that establishment. There are also three puttees in pergunnah Nagpoor, by name Purkundee, Bamsoo, and Mykhunda, set apart rent-free for the suda-burt expenses of the Kedar Nath temple, and situated near that shrine.

Pynkhunda Tulla.

4. Pergunnah Pynkhunda is divided into two portions, Mulla and Tulla. The latter lies along the lower course of the Doulee river, or farthest branch of the Ganges, before its junction with the Vishnoo Gunga, near Joshee Muth, and also for a few miles along the united river, thenceforward called the Aluknunda. Joshee Muth is comparatively a large place for the hills, being the winter residence of the Rawul and priests of Budrinath, and affording at that time, and also during the season of pilgrim resort, a market for the surplus produce of the neighbourhood: but most of the villages in this tract may be considered prosperous, owing to the circumstance of their being occupied during the winter by the Bhoteas of the upper tract; whom the rigor of the season compels to migrate to milder regions, and who are the chief purchasers of the grain grown by the villagers, and of the carrier-sheep bred by them among the magnificent pasture grounds of the ranges which crown their villages, and stretch upwards to the roots of the snowy peaks. Some of the villages in this neighbourhood are so situated as to afford to their owners great facilities as hunters, and many villagers derive a good profit from the sale of hawks, which they snare in their eyries, and of musk pods extracted from the musk deer, which they hunt down by their dogs. *Baz—beena* (hawks—musk) was a regular item of revenue taken in kind under the native governments. Tulla Pynkhunda

is the tract which the late Mr. Moorcroft talked of renting from Government, for the purpose of establishing himself in the best position for profiting by the Thibetan trade in shawl wool after his return from Central Asia: and it was to this beautiful region, and a home among its sheltering woods for the evening of his days, that that enterprising, but unfortunate, traveller always looked forward, with a fond hope from amidst the troubles and dangers of his trans-Himalyan journeys.

Pynkhunda Mulla.

5. The Mulla or upper puttee commences at the junction of the Reenee river with the Doulee, and is purely Bhoteea in its character. In no village of this tract is more than one harvest (of wheat, barley, buck wheat, phaphur—a species of polygonum—and turnips) possible, and in some years that is not reaped owing to too early falls of snow in October; but the Bhoteeas of the Neetee Pass, though not as wealthy as those of the Jowahir Pass (owing to their distance from such good markets as Bageswur and Almora,) are on the whole very thriving: and the trade with Thibet, except when, as lately, interrupted by political troubles, will continue to supply the sources of prosperity to the inhabitants of Neetee, Mularee, and the other villages at the sources of the Doulee. The capabilities of a real Bhoteea village may be estimated as great or small in nearly exact proportion to its vicinity to or distance from the snow—in other words, its prosperity corresponds to the rigor of the climate, the barrenness of the soil, and the impracticability of cultivation; for the more daringly these latter evils are encountered, that is, the nearer the village is to the Thibet frontier, the greater are its trading advantages.

The Bhoteeas. Remarks on the assessment of the Bhote mahals.

6. The Bhoteeas are not only the monopolizers of the carrying traffic between Thibet and the cis-Himalayan districts, but also of the export and import trade; and merchants from the plains and hills have never hitherto succeeded in establishing their own correspondence with Thibetan dealers. In the time of the Gurhwal Rajas and the Goorkhas, the Bhoteeas paid revenue to an unwarrantable extent, because their profits as merchants were over-estimated. In our rule their taxation has been greatly reduced: and I considered that Mr. Commissioner Traill had made an excessive sacrifice of revenue, when he introduced his nominal land tax and calculations of beesees into the upper villages of the Bhoteea ghâts; because there being no surplus produce from which rent

or revenue could be derived, a land tax appeared to me absurd. I thought that the form of lease should be a settlement per village according to its present trading prosperity, viewed with reference to the Government demand paid previous to the abolition of the custom duties, and to the consolidation of all demands into the so-called land revenue. I referred this matter for the decision of superior authority; and in reply I was instructed by the Sudder Board, not to attempt any fictitious mode of settlement according to rates of assessment on the land, but to make as fair an arrangement as I could between the Government and the Bhoteeas with reference to the general capabilities of their respective villages. On receipt of these orders, and remembering the duties levied on the Bhoteeas by the Thibet Government for the privilege of trading, I did not consider myself authorized to make any greater account under the head of profits of trade, than the late Commissioner had already, in fact, though not nominally, thrown into his calculations of the respective jummas demandable from the villages; and I accordingly, with some slight reductions in the case of two broken-down mouzahs, kept the existing Government demand for Mulla Pynkhunda unaltered. For a complete description of the Bhote muhals of Kumaon and Gurhwal, I beg to refer to Mr. Commissioner Traill's report, published in Vol. 17, *Researches Asiatic Society*.*

Budhan.

7. Budhan. The Pindur river forms the distinguishing feature of this pergunnah, and separates its two principal puttees from each other. Puttee Pindurpar reaches to the very base of the snowy range, and has some fine villages within a short horizontal distance of some of the highest peaks near the sources of the Khylgunga and Mundakhnee rivers. The best villages are not found in the valley of the Pindur; and considering the facilities for irrigation afforded by nature, it is remarkable how very little tullaon or low lands occur under the head of seera or irrigated. The finest villages are those either situated, like "Kob," on high upland near the forests, but possessing a large share of flat or easily sloping land—or placed, like "Wun," very near the regions of eternal snow, but surrounded by good pastures enjoying a bracing

* Granite, gneiss, mica slate and occasional primary limestone, are the chief formations of Pynkhunda; but at the passes into Thibet, and in their neighbourhood, the European secondary series with marine fossils are found to succeed to the primary system of the Himalaya. At Ghertee, in the heart of the snowy range, between Neetee and Milum, are lead mines, which have for some time been deserted.

climate, and inhabited by an enterprising and Bhoteea-like race of trafficking people. No part, however, whether lofty or low, of this pergunnah, has been exempted from the visitations of that fatal, and indeed extraordinary, pestilence called by the natives "*mahámaree*," (a malignant typhus fever accompanied with glandular swellings); which, in the character of its movements to and from, and periodical returns to, particular spots, somewhat resembles the cholera. The depression of the people, and indeed actual depopulation caused by this disease; the paucity of inhabitants in proportion to the vast extent of yet culturable ground, and in some cases considerable over-assessment; combined with a plan of misrepresentation as to actual circumstances attempted by some of the principal landholders, some of whom were also Government officials—rendered the revision of settlement in Budhan rather difficult; and it was not without some appearance of vacillation and some real embarrassments that, being at that time very inexperienced in Hill affairs, I placed the revenue arrangements in what I hope may prove to be a sound basis for the long period of the new leases—a period to which some of the pudhans, from its entire novelty and their entire ignorance, looked forward not without doubt and timidity. There are not many thokedars in Budhan, but those that exist are chiefly descendants of persons to whom military assignments of land were given under the former governments. The occupant zumeendars* are generally the descendants of those whom the thokedars induced to settle on their grants of land: on this account the latter are sometimes found recorded by the villagers themselves as proprietors of the soil, even where not the slightest possession, or *seer* cultivation on the part of the thokedars, exists; but in most instances the occupants claim the nominal proprietorship, although they are willing to pay the customary dues called by them sometimes malikana, sometimes nuzzurana, sometimes huq zumeendaree, and sometimes, indeed generally, huq thokedaree, to the seeana or thokedar. As, however, these dues are very small, and as no rent in addition to their quotas of revenue is taken from the occupants, it is really a matter of little consequence whether from ignorance, or fear, or from a hope of throwing the responsibility of revenue payment on the more powerful members of the community in case of any future hardship, the people have recorded the thokedars and their brethren as shareholders; or whether under a suspicion of probable usurp-

* Except when expressly mentioned in connection with the so-called zumeendaree tenure, the word zumeendar is used to represent the actual occupant, however humble, of the lands. European gentlemen coming up from the plains, sometimes express their astonishment at their baggage coolies being called and calling themselves by this name.

ation or exaction, or a knowledge of their own rights, the people have insisted on their own proprietary tenure.

Character of the Budhan people.

8. The Budhan Rajpoot, or Khussia, is, in general, a plain, simple-minded character: and though in this pergunnah there have been two or three instances of excessive litigation among the brethren of the thokedaree families, and on the subject of some of the larger pudhanships, still the people on the whole are more acquainted with the barter price of salt at Neetee and of the money price of wheat and rice at Almora, to both of which places they laboriously carry the produce of the fields on their backs, than with the theoretical tenures of their land—on which subject they, as well as the Bhoteeas, not unfrequently referred me to their wives for information!

Crops.

9. Rice—wet and dry, though chiefly the latter—*mundooa*,* *jungora*, *kodoo*, *ogul*† *juwar*, *bajra*, *chooa* or *marsa*,‡ form the chief grains of the khurreef crop here as elsewhere in the Hills; but the produce of each village, of course, varies according to its height and climate, and the nature of its soil. Hemp of the best quality is also grown in some of the upland villages, from which *bhungela* or hempen cloth for wear and for sacks is manufactured. Various kinds of pulse, *bhut*, *gahut*, &c., are common at this season, and the oil seeds surson and til. Wheat and barley form the chief rubbee crops, besides *ulsee* (linseed) and the pulse called *musoor*.

Sheep and Goats.

10. Great numbers of sheep and goats are bred and pastured on the high mountains near the snow, for sale to the Bhoteeas, or kept for the carriage of their goods and for the sake of wool (which the people of this tract largely use in their apparel) by the Budhanees.§

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* Mundooa (eleusine coracana) forms the chief food of the laboring classes in the hills, and is a very abundant crop.

† Ogul is buck wheat, and is sold with profit at the mundees in the terrai.

‡ Chooa-marsa (amaranthus anardana?) is called battoo in the western hills. The small grain from it is largely consumed for food. The fine red flowers of this plant when ripe are very beautiful, and in October quite color the landscape;

"and with one scarlet gleam
"Cover a hundred miles, and seem
"To set the hills on fire."

WORDSWORTH.

§ The rocks in Budhan are similar to those in Pynkhunda, except that there is a greater proportion of limestone, which formation characterizes some of the high peaked mountains south of the Pindur river. Iron ore is not unfrequent in this pergunnah, and is here and there worked.

11. Nagpoor occupies the Dooab between the Mundakhnee and Aluknunda branches of the Ganges uniting at Roodur Preeag. From Tirjogee Narain near Kedar Nath, however, there stretches down from north to south a high range of mountains lying a few miles to the west of the Mundakhnee, and the intervening space is occupied by two or three khalsa villages of Nagpoor, but chiefly by the three suda-burt puttees mentioned in paragraph 3 of this Appendix. In the former years of British rule there arose some doubt as to whether this tract of country, being west of the river, did not properly belong to the Raja of Gurhwal's reserved territory; but, as it was proved always to have formed a constituent part of pergunnah Nagpoor, the claim of the Raja was disallowed.

Nagpoor.

The celebrated temples of Kedar Nath and Budrinath are both in Nagpoor, and also the Panch Kedar, or five intermediate holy spots along the edge of the snowy range (Mudh Mehswur, Roodurnath, &c.) The winter residence of the rawul of the first mentioned establishment is at Okeemuth. The concourse of pilgrims during the season of resort from May to October, enables the zumeendars to sell their rice, wheat, ghee, &c., with advantage, along the different points of the pilgrim road nearest to their homes. They also breed large flocks of sheep and goats on the excellent pasture tracts which lie at the base of the snowy peaks. A great part of these they sell to the Bhotecas of the Mana* and Neetee passes, using the remainder for the conveyance of their own produce, and of the salt which they obtain in exchange. The Nagpoorees are almost all dressed in woollens, even where their residence is situated in temperate or warm valleys. As they do not change their clothes with the seasons, are dirty in their habits, and allow their habitations to be entirely surrounded in the rainy season by jungles of nettles, wild hemp, and similar rank vegetation, they are subject to much illness; and the fatal epidemic alluded to in the description of Budhan, commits some havoc in Nagpoor. In regard to temperature, the climate of some parts of Nagpoor is quite European, and the scenery of the whole tract is highly beautiful, while the vicinity of the eternal snows is characterized by the grandest sublimity. Nagpoor

* The Mana pass into Thibet is at the source of the Suraswatee river, which joins the Vishnoo Gunga at Budrinath. The chief village is Mana, a very large and prosperous place, close to the temple, to which the Bhoteeas of this tract are bound to pay their rents, and to do service.

will never be forgotten by those who have pursued the torrents of the Mundakhnee to their source, who have wandered among the magnificent forests of the Toongnath range, or who have spent a day on the banks of the Deoree Thal.

In this pergunnah are the copper mines of Pokhree, &c. which, in the time of the Gurhwal Rajas, are said to have yielded a large revenue. Since the British occupation of the province they have never been very profitable, and the produce had become so scanty, owing to the difficulty of working the ground, rather than to the absence of ores, that in 1837 the farmer could not even pay one hundred rupees per annum; subsequently an experimental mine was opened by Government at Pokhree, under the superintendence of Mr. Wilkin, a Cornish miner; and the results of the undertaking, now closed, have been fully represented by the Commissioner in his recent report on the mines of this province.*

Chandpoor.

12. Chandpoor forms the centre of British Gurhwal, and is characterized by very lofty ranges of mountains covered with forests, separating the Pindur river from the Ramgunga, and again the different branches of the latter river (all rising in this tract) from each other. The puttee of Chandpoor itself possesses some very fine villages, situated on high slopes surrounding the fort which gives its name to the pergunnah. Here the dynasty of Rajas, now represented by their lineal descendant, Sheodursun Sah, the protected Raja of Gurhwal, had their origin, and ruled, previous to their founding a capital (about 400 years ago) at Sreenugur. Many of the villages consequently belong to brahmins of the Kundooree tribe, who held the principal offices under the native rulers. Puttee Lohba, as mentioned in the body of the report, was remarkable for its fortress at the frontier, between Gurhwal and Kumaon, and this was continually the scene of conflicts between the forces and inhabitants of the two rival districts; and owing to this, and similar posts along the whole line of frontier, the Goorkhas were kept out of Gurhwal for twelve years after they had obtained possession of Kumaon. The people of Lohba are consequently a fine manly

* Granite, gneiss and mica slate prevail in Nagpoor. But clay slate and magnesian limestone are also very plentiful. The rocks in which copper ores are found are talcose slate and dolomite.

NOTE—1849. *Vide* the Reports on mines attached to this compilation.

race, and at present make very good soldiers. Puttee Chupra Kote extends from east to west over a large space of wild country, and in some parts the villages are but scantily interspersed along the high wooded ranges. The people are for the most part poor, except at the south-east extremity, which borders on Pallee in Kumaon, and approaches in fertility and population to the prosperous state of its neighbourhood. Owing to the situation of some of the villages near the forest, and the difficulty experienced by the few inhabitants in preserving themselves and their crops from the ravages of wild beasts, a decrease of the Government demand, to the extent of nearly 300 rupees, was found necessary in the three puttees of Chandpoor; and the system of keeping villages together under influential thokedars (none however rich or powerful), was preferred in many instances by the villagers. The good effects of the settlement have already become apparent, especially in Chupra Kote; and some villages in the neighbourhood of Kunour, which I remember almost waste, have now become well cultivated. There was formerly a tuhsildaree establishment at Kunour, and its abolition some years ago as a measure of economy, removed one market for the sale of produce. The people of Chupra Kote also have not the benefit enjoyed by those of Lohba and Chandpoor, of the pilgrim road running through their district. Recently however, good paths have been made over the high ranges on every side; and communication with Sreenugur, Kumaon, and the northern pergunnahs from which the zumeendars have to procure their salt and wool, has become comparatively easy. A good road along the line of the Nyar river and over the southern mountains, now connects this tract with the principal routes leading to the mundees of Chilkea and Kotedwara, and other marts for Hill produce at the foot of the Hills. Large quantities of hemp of the very best quality, in addition to the grain and other crops enumerated in paragraph 9, are grown in this pergunnah. The laboring population in the villages where this useful plant is cultivated, and where hempen cloth is manufactured, are chiefly *Khussias*; and though others of similar origin elsewhere assume the name and thread of the Rajpoot, here many are found who appear as *soodras*, and allow themselves to be included in that caste.*

* The grey wacke formation is very abundant in Chandpoor, and clay slate bears a fair proportion to the mica slate rocks. Limestone forms some of the high-peaked ranges, and in Lohba is metalliferous, yielding both iron and copper, the latter however scantily and partially. There is a great out-burst of granite in the Kunour district and on the high Doodoo ke Tolee range. This is remarkable, from being the first occurrence of this rock in the central hills (that is in the line of about 40

13. Dewalgurh is named from a great temple and religious establishment which possess rent-free lands, both in the Raja of Gurhwal's territory and in the British district. This pergunnah lies along the left or southern bank of the Aluknunda, extending for some distance into the interior of the mountains, and is remarkable from the situation in it of the capital Sreenugur, and the Dhunpoor copper mines. Sreenugur fell into decay from the great earthquake in 1803, and from the removal of the Gurhwal Raja's residence to Teerhee on the Bhagiruttee, on the restoration to him by the British of half the territory conquered from him by the Goorkhas, and the inclusion of the old capital within the British half of the district. Some trade, however, always continued to be carried on between Sreenugur and Nujeebabad. The formation of the pilgrim road on the eastern bank of the Aluknunda, has also made this town the resort of numerous pilgrims during one season of the year; and latterly the location of a separate European Officer in charge of Gurhwal at Paoree in the neighbourhood, and the establishment of a Sudder Ameen and Moonsiff's court in the place itself, have thrown a little life into Sreenugur. Captain Huddleston has also paved and otherwise improved the town, and a good direct road has been made from it to Nujeebabad, in addition to the former one down the Ganges to Hurdwar. The Dhunpoor copper mines are the best in the province, and have been described by the Commissioner, and previously by Captain Herbert and others; but there is one peculiarity concerning them which deserves notice, viz., that 21 villages, large and small, have always been attached to them; and it has been found impracticable to separate the lease of the villages from that of the mines, old custom having made the labour and supplies derived from the former essential to the mine lessee. Out of a total revenue of 1,901 rupees paid by the farmer to Government, I found that he only collected rupees 266 from the villages. A slight increase of the Government demand for the whole pergunnah accrued in the course of the present settlement. The valleys of Punae and Sreenugur in this pergunnah are eminently rich and beautiful, and the Dhunpoor range is noted for its magnificent scenery.*

Dewalgurh.

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or 50 miles north of the plains), between the great Chor mountain in the west, and Kumoan, where granite is almost as common in the heart of the country as in the snowy range.

* Grey wacke, trap, and quartz rock, clay slate, talcose slate and limestone, alpine and dolomitic (the latter containing the copper ores), are the prevailing geological formations of Dewalgurh.

Barasewn.

14. The 14 puttees of Barasewn are bounded by the Nyar on the east and south, and the Alukнunda on the west. The hills are for the most part bare of wood; but the whole tract, with the exception of some portions of the river glens, is eminently fertile, and bears a resemblance rather to Kumaon than Gurhwal. The villages are large, and the population plentiful and industrious. Each puttee generally has its own separate valley, and the surplus produce is sold at Sreenugur, on the pilgrim road, and in the plains; tobacco of a good quality is produced in low situations, and sugar-cane is sometimes seen. Hemp is but rarely grown; neither do the people use sheep and goats for the purposes of traffic. Their dress also is more frequently made of cotton than of hempen cloth, and woollen apparel is quite unknown. Land being here valuable gives rise to considerable litigation, and the vicinity of the courts (perhaps the cheapest to suitors in all India) enables many of the inhabitants of Barasewn, who are fond of law, to gratify their inclination. This part of the country was very much injured by the oppressive rule of the Goorkhas; but, even in the time of the Rajas, near the close of last century, General Hardwicke, who visited Sreenugur from Nujeebabad, describes this tract as wretchedly waste. Those now traversing the same tract would not recognise his description: and I know of no part of the Hills where the benefits of our rule are more conspicuous to the eye, or more often recited to the ear.*

Chound Kote and Mulla Sulan.

15. Chound Kote and Mulla Sulan, also, in a great measure, resemble the Kumaon Hills, on which the latter pergunnah borders. The Sanee and Nyar rivers, and their small tributaries, traverse this district. Chound Kote is remarkable for the almost entire absence of all forests, except towards the fort, which gives name to the pergunnah. The grain crops are remarkably abundant; but, except in the cold weather, when the people can carry their produce to the plains, there is no near market for its sale. The observations made on Barasewn apply to these pergunnahs, and no further report on them seems necessary, save that the inhabitants, though in my opinion a far from contemptible race, are eminently litigious, and bear the character, among the more simple Gurhwallees, of being almost as deceitful and cunning as *desees* or lowlanders. Some of the disputes which occurred have been alluded

* Clay slate and quartz rock almost exclusively prevail in Barasewn.

to in the report. I hope that the settlement has succeeded in putting matters connected with the land and its tenures on a better footing than formerly, and will tend somewhat to keep the people out of court.*

Tulla Sulan.

16. Tulla Sulan. Puttees Buddulpoor and Kourhea are situated close to the last described pergunnahs, but nearer to the plains, though chiefly lying on the north or Hill side of the last high range. Some circumstances connected with Kourhea have been elsewhere mentioned. The revenue was kept unaltered from its former amount. Puttee Buddulpoor possesses some very large, fertile and populous villages, some of which were thought to be under assessed. A total increase in the Government demand on the whole puttee, of 64 rupees, arose from the different village settlements, and was imposed with the greatest facility. The Hills on which the hamlets of this puttee are scattered, strongly resemble Almora and its neighbourhood. The settlement of Bijlote, Boongee and Pynao on the south of the range facing the plains, and the Patlee and Kotree Dhoons, gave me considerable trouble, and required much care. A decrease of revenue and a total remodelling of the village leases were found necessary. Pynao is situated in the valley of the Mundal river, the climate of which is almost as bad as that of the terrai. Wild elephants abound and commit great depredations on the crops in the rainy season. Tigers also are numerous, and kill both men and cattle. Seela is situated on both sides of the Koh river, and some account of its circumstances has been included in the report. Large portions of it are waste, and some of the villages are unfavorably placed on the border of the saul forests, which here, as in Buddulpoor, begin to take the place of oaks and pines and other alpine vegetation. The Patlee Dhoon is traversed by the Ramgunga, as that river approaches the plains, from which the Dhoon is separated by a steep sandstone range, resembling in almost every respect, save in the fewness and difficulties of its passes, the Sewalick range between the Ganges and the Jumna. A separate report on this Dhoon was made by me on the 28th September, 1838. It may suffice here to repeat, that the quantity of flat land is very small indeed, in comparison with the hills and ravines, and that the forests of saul and bamboo (the timber of which is floated down the Ramgunga in rafts) are plentiful and valu-

* Clay slate, mica slate and limestone, with occasional granite rocks, occur in these pergunnahs.

able. The climate is of course insalubrious, and a difficulty is found in procuring cultivators for the different clearings. The settlement was made with Pudum Singh Negee at 275 rupees (a reduction of 100 Rs. having been allowed). He had an hereditary claim to the lease of this tract; and though his right to the zumeendaree had not been previously admitted, he will now possess all lands which he may redeem, under a proprietary tenure. He is also the lessee of the kat bans and churaee (timber and pasturage dues) farms. Four of the villages included in his lease are situated outside the lower range in the gorges of the passes. The Kotree Dhoon, properly so called, is merely a small uncultivated valley, with very rich pastures, situated in the midst of the lower hills near Kotedwara. In the lower parts of Tulla Sulan, ginger, turmeric, tobacco, and chillies (capsicum) are grown in great abundance, and are most profitable articles of produce when sold by the puharees at Chilkea, Kotedwara, Ufzulgurh, and other marts in the plains.*

Gunga Sulan.

17. Gunga Sulan has for its boundaries the Ganges below the junction of the Nyar river on west, the Koh river on the east, the Nyar river on the north, and talooka Chandee and other parts of the Bhabur on the south. Dhangoo, as its name in the Hill language implies, is rocky and rugged, especially in the neighbourhood of the Ganges, which here forces its way through steep precipices; some of the villages are small and poor, and a slight reduction of the revenue was thought expedient. Kuroundoo and Lungour are chiefly in the vicinity of the Koh, but these puttees are of very irregular shape and are not compact, but have their villages capriciously scattered among the other divisions of the pergunnah. Lungour is remarkable for its two fortresses of that name on the crest of a high precipitous ridge, which separates the Koh from the Nyar river. Here the last Gurhwal Raja, before retreating to Hurdwar, where he was killed, made the last vigorous defence of his country against the invading Goorkhas, who were before Lungour Gurh for some years. Ajmere and Oodehpoor, though in their lower parts very jungly, contain in the heart of the pergunnah some very

* With the exception of granite, the rocks named in the last note prevail in Tulla Sulan, but all are succeeded by sandstone in the Dhoons and lower ranges. The Sona stream rises in these latter, and joins the Ramgunga in the Patlee Dhoon. The sands of this stream, as the name implies yield gold, and the bed of the Ramgunga, also after its junction, is auriferous. The gold washers who resort hither, earn however but a scanty subsistence, and Puddum Singh, the farmer of the Dhoon abovementioned, only pays Government 25 Rs. per annum for the privilege of collecting the dues from these people.

fine villages, and the country is not unlike the fertile tract near Bheemtal in lower Kumaon. The Oodehpoor Hills, covered with saul forests, stretch into the Chandee Dhoon, and are separated from the Dehra Dhoon by only a strip of level ground and the Ganges: the produce is similar to that described in Tulla Sulan, and the inhabitants also derive a profit from cutting and selling the sauls and bamboos which grow on the lower ranges. The mundee of Bedasnee is situated in Oodehpoor, and the zumeendars find also a near market for their grain, turmeric, &c., at Hurdwar.*

Talooka Chandee.

18. The revision of settlement in talooka† Chandee will form the subject of a separate communication, and its revenue statistics have not been included in the present report. Some of the villages have fallen entirely waste, and the land revenue has in consequence sunk from rupees 809 to rupees 719. As the forest lands at the disposal of Government have now been separated from the area of villages, the former will gradually be partitioned off into *grants*, under the Rules for the redemption of waste, introduced by the Sudder Board of Revenue into Goruckpoor, Suharunpoor and the Dehra Dhoon, and a gradual increase of revenue will take place in this ilaqua. Already offers for tracts under the regulated terms have been made, and in the ensuing cold season, I hope to survey the required portions, and give possession to the capitalists, who wish to occupy them. At present the farms of jungle produce, and pasturage dues in Chandee, which, under orders of superior authority, have been re-let for a period of three years, yield a profitable amount of revenue to the State. This ilaqua is the only portion of Gurhwal Bhabur, which stretches much beyond the base of the lowest range into the plains, its extent below Chandee ferry (opposite Hurdwar) being nearly 20 miles. None of the pudhans or cultivators in this tract are puharees. Boksas are the chief agriculturists. Elephants abound in Chandee, and a few are caught in pits every year. The sands of the Ganges here are auriferous, but the amount of revenue derivable from the gold washing is not greater than in the Patlee Dhoon.‡

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* The geological formations of Gunga Sulan are the same as in lower Tull Sulan.

† NOTE—1849.—This talooka has subsequently been included in the Bijnore district.

‡ Sandstone and conglomerate rocks exclusively prevail in Chandee. Traces of lignite coal are frequent in the beds and banks of the small streams. Fossil remains of animals have also been discovered.

19. I may here conclude this Appendix by stating, that Captain Huddleston has favored me with the following results of a late rough census, made under his orders, of the population in British Gurhwal.

Conclusion.

*Population Return of the District of Gurhwal taken during the years* 184-41.

| Men. | Women. | Boys. | Girls. | Total. | Brahmins. | Rajpoots. | Khussias. | Low Castes. | Slaves and Haleeas. | Mussulmans. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 43,112 | 43,815 | 28,552 | 17,295 | 1,32,774 | 29,422 | 44,798 | 34,502 | 22,328 | 1,358 | 366 | 1,32,774 |

KUMAON AND GURHWAL SETTLEMENT OFFICE,
15*th August* 1842.

(Signed) J. H. BATTEN,
*Settlement Officer.*

# A FEW NOTES

ON THE SUBJECT OF

# THE KUMAON AND ROHILCUND TURAEE:

BY

J. H. BATTEN, ESQ.,

*CIVIL SERVICE.*

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Deficiency of records concerning the Turaee.

PREVIOUS to the reign of the Emperor Akbar, that is to the latter half of the 16th Century, the history of Kumaon in connection with its low land possession and also of the Hill Raj of that name itself, is but imperfectly known.

Even to a still later period, tradition confirmed by documentary evidence and the voice of general testimony in the neighbouring districts, takes the place of all authentic written records within the province itself on which reliance can be placed. The few Puthan families of respectability now settled in the Turaee, are like their whole race in Rohilcund, but a recently introduced colony. From them, therefore, it would be vain to look for any details connecting the series of events even in their own villages. The Bhoksa and Tharoo tribes, although permanent occupants in the whole jungle tract lying along the base of the sub-Himalayan mountains between the Ganges and the Gunduck, are not, and never have been, permanent residents at any one spot; nor are they possessed of sufficient intelligence to know the tale of their own chosen region, or be able to recount the revolutions which have occurred on the scene of their imigrations. Of the other tribes inhabiting the present villages or clearings in the Turaee, it is not probable that many families can trace their settlement in that wilderness, beyond the third or at utmost fourth generation

preceding them. Raja Sheoraj Singh, the principal personage of the Turaee pergunnahs does not owe his present position, in that tract, of talooqadar or manager, or farmer, or zumeendar (or whatever under existing arrangements may be his proper designation) to any direct descent from the Kumaon Rajas, or to any long possession continued from their time to his own. Before his grand father Lall Singh accompanied by Mahendra Chund, the representative, at least by immediate birthright, of the royal race of Kumaon, descended with their families to the plains, and became by favor of the Nawab Vizier connected with the latter history of the Tureea, intestine disturbances had begun to destroy the semblance even of a central Government in Kumaon, and the state records, such as they were, became scattered among the various *kamdars*, to whom they had been officially entrusted, and who only preserved such portions of them, as might tend to prove their own importance, or that of their several families. During the troubles consequent on the Ghoorka invasion in the year 1790 A. D., the regular traces of past times became more and more obliterated; and when the last relics of the Chund Rajas abandoned their native hills, and took refuge at Kilpoory in the plains,— nearly the only place where they still possessed any thing like a property in the land,— they took down with them no weighty burden of state records, and left but few behind. Afterwards at Roodurpoor, one chief scene of their exile, a fire occurred, which is stated to have consumed many family documents; while at Almora any *duftur* or record office that existed may be supposed to have commenced its collections only from the accession of the Ghoorkalee Government. Under these circumstances, it is not a matter of wonder that neither the British authorities in the Hills, deriving their information from qanoongoes and other usual depositories of such knowledge, nor the descendants of the Hill Rajas, in the persons of Sheoraj Singh above named, or his cousin of the elder branch, Pertab Singh, now residing at Almora as a pensioner of the English Government, should be able to furnish exact data for an historic narrative.

Turaee during the Kumaon Raj. Kuttoora dynasty, Chund dynasty, &c., &c.

2. Using such means as I have in my power, I proceed to draw a short and rough sketch of the successive revolutions to which the country has been subjected, and, wherever possible, of its successive conditions, in the hope that such a description, however imperfect, may be found if not useful as evidence, at least acceptable as part of a picture, at a time when the attention of

those in authority has been strongly drawn to the present state of the tract described.

Kuttoora dynasty.

3. The dynasty called Kuttoora is the earliest known to have reigned in Kumaon. The Rajas of its line are said to have been of the *Sooruj Bunsee* origin, and they have been clothed by the imagination of the *Paharees* with almost divine attributes; while, the extension of their authority to Dehlie and Kanouj in the plains, and from Mundee to Siccim in the Hills, is confidently assumed as a matter of fact. The whole race* appear to have become utterly extinct, but at what time, and in what manner, no one can tell, and in fact their whole history is lost in the greatest obscurity. Within the present provinces of Kumaon and Gurhwal, *Josheemut* near Budrinath, and *Kuttoor* not far to the north of Almora in the now almost desolate valley of Byjnath, are celebrated as the principal seats of their power. The ruins still existing in the latter place, and at *Dwara Hath*, some miles to the westward, are pointed out as the relics of the Kuttoor Raj, as are also the low carved stone pillars called Brih-kumbh,† placed at intervals of a few miles, so frequent in the eastern parts of the district, and which are said to have marked the halts or encampments in the royal progresses. Some of these ruins, especially the *chubootras* and wells, are not without beauty, at least in their carving, and the great number of small temples even now standing, each as it were dedicated to a separate idol, and the quantity of idol images themselves which have been found in their precincts, shew that the Kuttoora Rajas were devout worshippers of the whole Hindoo Pantheon. The shape of the buildings, and the character of the sculptures are said to be similar to the architectural features observed in the south of India; but, I believe, that the same forms are quite common in Bundelcund and on the banks of the Nerbudda. From the account above given, it will at once be seen that the dynasty of which we are speaking was of low-land origin, and that no signs of an aboriginal extraction are visible in its remains. As before the Mahomedan conquest of India, the rulers of a region so illustrious in the shashtras as the Himalya mountains, being also by their position masters of the sacred sites at the various sources of the Ganges, may be supposed to have held rank equal with, if not superior to, the Rajas of *Kuttair*, or country between the moun-

* At least that tribe of the Kuttoora *Sooruj Bunsees* which reigned in Kumaon.

† This is *Bhákhá* for *Brihs-tumb*, बृहस्तंब

tains and the Ganges now called Rohilcund; and as, after the establishment of the Mahomedan empire in Hindoostan, the Kumaon Rajas were found in hereditary possession of the Turaee by a tenure quite independent of any grant from low-land, potentates, I see no reason for doubting that the Turaee throughout its whole extent formed an integral part of the Kuttoora Kumaon Raj. That it also formed an *important* part, may be assumed from the almost absolute necessity still existing, that a large portion of plain country should, if not attached to the Hills, at least be available for the annual resort of the *Paharees*, and their cattle; (an occupancy which under native rulers, could hardly be maintained without an actual right of property in the soil, and actual separate possession thereof by the Hill powers;) and from analogies drawn from the late and existing feeling in Nepal, in regard to the tract at its base. Beyond this all is conjecture regarding those ancient times; and the question whether Sumbhul and Bareilly were then subject to Kuttoor may be left for amicable discussion between the *Paharees* and *Desees*, when they meet annually at their now common pasture grounds, and need not engage the too jealous attention (as at one time it was feared it might) of British functionaries.

Khusseea Raj.

4. The Kuttooras in Kumaon were, we are told, succeeded for some time (13 or 14 generations) by a *Khusseea* Raj, that is by numerous petty chiefs among the mountaineers themselves each governing his own small territory, and fighting with his neighbours. The many small forts scattered throughout the province, in situations where such defences would be useless to a Government holding undivided authority over the whole tract, would seem to prove the truth of this traditional history.

Chund dynasty.

5. On emerging at last from this confusion, we find the earliest name of the *Chund dynasty* in *Som Chund*, a *Chundra Bunsee* Rajpoot, who is narrated to have come from the village of *Joosee* in the province of *Allahabad* (trans-Doab,) and to have established his power and a capital at Champawut* at or about the year 1100 Saka corresponding to 1235 Sumbut and 1178 A. D. The Joshee (Jyotishee) Brahmins who have subsequently been such influential members of the Hill community, accompanied the first of the Chunds to Kumaon. It would be quite out of place to register in this report the list of Rajas who followed Som

* Also called Kalee Kumaon from its vicinity to the Kalee river.

*Chund.* Some persons, indeed, are found who deny the continuity of the dynasty altogether;* but, be that as it may, the historian of the Turaee has almost nothing to tell concerning any of the line previous to the 44th generation. Raja *Kullian Chund* removed the capital from Chumpawut to Almora, and built that city in 1620 St. or 1563 A. D. His son and successor *Roodur Chund* was a contemporary of the Emperor Akbar, and in the course of his reign of 28 years made frequent visitations to the Turaee, and not to leave himself without record in the land, became the founder of Roodurpoor.

Roodur Chund; extent of Kumaon Turaee in his time.

6. But what is meant by the Turaee in Akbar's time? To what extent of low-land dominion did Roodur Chund succeed? Although an hereditary, was the Turaee an undisturbed possession of Kumaon in preceding times? On a reference to cotemporaneous history we find that the year 1194 A. D. is the date generally fixed for the conquest of *Kanouj* by the arms of *Kutb-ud-deen*, the Lieutenant of *Shahab-ud-deen*, and also that 1195 A. D., saw him extend his victories across the Ganges to *Budayoon*. It is I think extremely probable that an incorrect tradition may have anticipated the commencement of the Chund dynasty in Kumaon by 16 years, and that in the great revolution which transferred the empire of the Gangetic plain as far as Benares from the *Rahtores* to their Mahomedan victors, when the dispersion of numerous powerful Hindoo tribes took place every where, among them the earliest *Chund* and his followers found their way to Kumaon. But, whether the elevation of this race in the Hills preceded or followed the fall of the Kanouj kingdom, the shock of that fall may well be supposed to have reached to the foot of the Himalya, and hardly to have been arrested at Budayoon and the lower parts of Kuttair. The rule of the Hill powers, whether Khusseea or Chund if it had survived at all the decadence of the Kuttoora line, and the breaking of that Raj into petty chiefships, must have been rudely shaken at this period. Even allowing that subsequently some kind of authority over this tract was regained as the Chund Rajas became one after the other more and more firmly seated on their mountain throne, the authority must have been one

* It seems a matter of universal tradition that between the 8th and 9th succession of Chunds, a second Khusseea Raj intervened, and also that until the 11th of the line by name Lutchmee Chund, some representatives of the old Kuttoora dynasty possessed a limited power at Kuttoor itself, but that in the reign of this Raja they were subdued by violence, or absorbed among the mass, or otherwise disappeared and "the land knew them no more."

exercised under permission on account of tribute yielded to others, or, at best, under neglect or contempt on account of its intrinsic insignificance. The Paharees indeed while boasting of their ancient boundary on the south as "Gunga-war," or not short of the Ganges, almost unanimously allow that at one time, the possessions of their ancestors in the plains were woefully circumscribed, if not altogether lost; and that it was not without difficulty that *Oodhian Chund*, the 30th of his line, attained by some means or other an honorable and determinate position in the *Des* for himself and successors. To continue then the story, and answer the remaining questions placed at the head of this paragraph, *Roodur Chund* found himself the lord of the muhals or pergunnahs named below.

| | | |
|---|---|---|
| 1. | Suhujgeer, ..... now called | Juspoor. |
| 2. | Casheepoor or Kotah, ..... | Casheepoor. |
| 3. | Moondia, ..... | Bazpoor. |
| 4. | Guddurpoor, ..... | Guddurpoor. |
| 5. 6. | Boksar, ..... | Roodurpoor<br>Kilpoory. |
| 7. | Bukshee, ..... | Nanukmutta. |
| 8. 9. | Chinkee, ..... | Bilheree,<br>Surbna. |

This whole tract which is exclusive of the *upper* Bhabur nearer the Hills, (of which I shall have to speak hereafter) was called *Chowrassee Mal* and *Nowlukhia Mal*,—"Mal" being then as now the Hill term for the low country. The former name was derived from the size of the territory, which was reckoned at 84 coss in length—the latter name from the real or nominal revenue of the territory—viz. nine lakhs. The boundaries on the west were the *Peera* or *Peela Nuddee* at *Raepoor* between Juspoor and the Ram Gunga, on the north the *Ookhur Bhoomee*, or region of no water (now the Bun or Forest); on the south the higher ground of the regular plains, according to certain old known limits of the pergunnahs; and on the east the Sardah river near *Poorunpoor*. The reign of Roodur Chund was not entirely without troubles; for, during Akbar's minority the imperial officers attempted to resume the territory and sent a force for that purpose. The young Raja, however, made a successful resistance and afterwards proceeded to Dehlie, where he obtained favor at the Court of the Emperor, and distinguished himself in some expedition against *Nagor*. The final result of this step was his obtaining a sunnud* for the *Chowrassee*

* Not now existent at Almora.

*Mal** pergunnahs, and his return to the Hills with enhanced powers.

Successors of Roodur Chund to Baz Buhadoor Chund.

7. In the time of his immediate successor *Lutchmee Chund* (still in the reign of Akbar), the royal armies appear to have revisited the Turaee, and their places of encampment are still pointed out at *Tandah*, and more especially at *Peepulhuttah* where there is a mangoe grove called the Badshahee Bagh. Fourth in descent from Roodur Chund we find *Tremal Chund*, Rajah of Kumaon between the years 1625 and 1638 A. D., during part of this period the Turaee is stated to have attained a high degree of prosperity, and to have actually yielded nine lakhs of rupees from various sources of revenue to the Hill treasury; but before the death of Tremal Chund the prosperity of the tract excited the envy of its neighbours, and encroachments began to be made by the *Kuttair Hindoos* not disallowed by their Mogul rulers. His successor *Baz Buhadoor Chund* finding himself in danger of total dispossession from these fertile lowlands repaired to Dehlie, and imitating the conduct of his ancestor entered into the military service of the Emperor *Shah Jehan*. He accompanied the imperial expedition against Candahar and Cabul. A fortunate opportunity occurred, and the division which the Raja commanded was able to gain some important advantage. Consequently on the return of the royal armies to Dehlie, Baz Buhadoor Chund was honored by many signal marks of favor, but not content with obtaining empty titles, he adhered to the original object of his visit and procured the full recognition of his right to the *Chowrassee Mal*, together with an order ahdressed to the viceroy of the Soobah for effectual assistance against the *Kuttair* chiefs. Through the aid of *Nuwab Roostum Khan*† he succeeded in expelling his enemies from the Turaee, and he afterwards caused the town of *Bazpoor* to be built, and to bear his name. It is said that "every *beegah* and *biswansee*" was cultivated at this time, and that the construction and repairs of bridges, *bunds*, and water-courses was diligently cared for by the officers of Government. These functionaries resided at Roodurpoor in the plains and at *Buroh Kheree* and *Kotah* on the spurs of the lowest range during the hot months. *Cashee-*

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* Some persons consider this word as an abbreviation of the Persian word Muhal, but the Paharee philologists declare that *mâl* is a special Hill Hindee word.

† The founder of Mooradabad.

*poor* was not then a place of any importance, and the Paharees (I know not how correctly) even place the foundation of the present town and gardens at a period more recent than the Rajas hitherto named. At Kotah and Barokheree and elsewhere in the lower hills, are remains of forts and residences and mangoe groves which go far to show that the climate at those sites was not in former times so insalubrious as at present, when few men in power would confine their retreat from the Turace heat to such low elevations in the mountains as these. Kotah indeed is stated to have been the capital for all the western portion of the Chowrassee Mal, and to have given its name to the lower pergunnahs, and not only as now to the near sub-mountain region. The good fortune of Baz Buhadoor Chund followed him to the end. He wrested the dominion of the *Bhote* passes from his northern Tartar neighbours; he associated his name with universal prosperity in the minds of his *Kumaonee* subjects; and he died, after a rule of forty years, in the year 1678 A. D. during the reign of Aurung Zebe.

History continued to the time of the Rohillas.

8. If I were writing a connected history of Kumaon, the five successions of Rajas between Baz Buhadoor Chund and *Kullian Chund*, the fourth of his name would afford me ample material both for narrative and comment; for, during this period the prosperity of our Hill principality having attained its culminating point* began rapidly to decline and the descent to ruin was marked by civil war with its disastrous accompaniments of royal assassinations and popular anarchy,—a fitting prelude to the foreign invasions which followed in due course. But the important epochs in the history of the Kumaon Turaee need alone occupy our present attention, and passing over the half century to which I have alluded, I arrive in the year 1653 Saka or 1731 A. D. at the accession of *Raja Kullian Chund* IVth. The Rohilla chief *Ali Mohumed* at, or, soon after this period succeeded his converter and adopter *Daood Khan* in the powerful position acquired by the latter; the splendours of *Budayoon*, the old capital of the *Sircar* had begun to fall before the display of upstart military importance at *Aonla*, and in short

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* *Oodeot Chund*, the immediate successor of Baz Buhadoor Chund, and *Juggut Chund*, the third in descent, bear a high name in Paharee history. In the time of the latter, nine lakhs are again mentioned as the revenue of the Turaee—but after this epoch the intestine disturbances became utterly destructive of all prosperity both in the highlands and lowlands.

*Kuttair* was fast becoming Rohilcund.* In the earlier part of his reign, *Kullian Chund* had to contend against the aggressions of *Nuwab Munsoor Ali Khan*,† who attempted to attach *Surbna* and *Bilheree* to the neighbouring (trans-Surdah) *Chuckladarship* in *Oudh*;‡ but, by a successful appeal to the Emperor *Mohumed Shah*, the nominal integrity of his Turaee possessions was preserved to the Kumaon Raja. During his latter years, he suffered from a far more terrible enemy; but let me here snatch from oblivion an important record of the times immediately preceding the invasion of Kumaon by the Rohillas which has fortunately survived the ruin of that era.

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*TABLE of Revenue Statistics in the Munes (Mudh'-des) Pergunnahs of Kumaon for the year 1666 Saku, corresponding to 1801 Sumbut, 1744 A. D., furnished by Kishna Nund Udkaree, descendant of the former Tehsildars of the Turaee, and now inhabitant of mouzah Rutgul, Puttee Uttagoolee, Pergunnah Bara Mundul, Zillah Kumaon.*

| Name of Pergunnah. | Rubbee harvest. | Khureef harvest. | Khurch purbhee (Holidays.) | Raccha (Junecoo, &c.) | Sayer (miscellaneous.) | Jooa ke baach (gaming tax.) | Teeka (nuzeeranna.) | Khurcha mewajat (fruit tax, &c.) | Total annual jumma. |
|---|---|---|---|---|---|---|---|---|---|
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Casheepoor, &c., ..... | 100000 | 100000 | 5500 | 474 | 20000 | 713 | 501 | 1001 | 228189 |
| Roodurpoor, Bilheree, &c,,..... | 50000 | 60000 | 2750 | 303 | 10000 | 352 | 251 | 700 | 124356 |
| Surbna,..... | 25000 | 20000 | 1675 | 208 | 25000 | 172 | 150 | 500 | 72706 |
| Total,.... | 175000 | 180000 | 9925 | 985 | 55000 | 1237 | 902 | 2201 | 425251 |

NOTE.—The Tehsildar of Casheepoor, and the *Chowrassee Mal* in general at the time of this statement was Permanund Udkaree. His grandfather *Casheenath* in the time of *Bax Buhadoor Chund*, is said to be the real founder of the present *Casheepoor*, on the site of 4 villages in which the temple of *Oojeinee Debee* was a place of old Hindoo pilgrimage. The son of Casheenath was called *Seonath*, and the village of Seonathpoor and numerous mangoe groves near Casheepoor and Kotah planted by him still render his name immortal as the thriving and fortunate servant of *Oodee Chund*. His descendant Kishna Nund Udkaree possesses numerous sunuds, both on copper plate and paper, of that period. This individual is now a Government Putwarree in pergunnah Gungolee.

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* वैसोमे ऐसी करी ॥ देषो प्रभू के ढाट ॥
आंवले को राजा भयो ॥ बाकोलि को जाट ॥

Waise see aise kuree, Dekho Prubhoo ke thât,
Aôule ko Raja bhayo, Bakolee ko jât.

This popular distich concerning the sudden rise of Ali Mahomed is well known in Kumaon.

† Afterwards called Sufder Jung.

‡ *Seeb Deo Joshee*, the prime minister of Kullian Chund, was wounded in a fight with the Chuckladar Tejoo Gor, and was taken prisoner, but subsequently released.

All the reports made by the Kumaon canongoes and other natives belonging to the province concur in fixing the *nominal* revenue of the *Chowrassee Mal Pergunnahs* in the year 1744 A. D., (or one hundred years ago) at about the same sum as that named in the preceding statement, viz., somewhat more than four lacs of Rupees inclusive of all items. But, at the time of the Rohilla irruption in that year, the actual collections had dwindled to less than two lakhs,* and as the whole lowland country of which we are speaking was virtually held in military assignment by the mercenary troops of the Raja, known (from the place of their origin in the west) as *Nuggur Kotia*† sepahees, it may be doubted whether in the time of *Kullian Chund*, at least previous to the expulsion of the *Rohillas* from *Kumaon*, any treasure ever ascended to Almora at all. The present peshkar of the *Huzoor Tehseel, Kishna Nund, Joshee* of *Gullee*, has found among his ancestral papers a long list of villages and of their respective *ruqbas*, the abstract of which I give below. It refers to an early year of Kullian Chund, 1657 Saka or 1735 A. D., but it unfortunately does not contain any information as to the proportion of waste to cultivated land.‡ It may however be found interesting as shewing the number of villages *standing on the rent roll* at that time, and as affording data for comparison with the state of affairs in 1835 A. D., a date which (I know not how correctly) I have heard mentioned as that in which *under British rule* Turace matters were at their worst, and from which a renascent order of things may be assumed to have commenced.

| *Pergunnahs.* | *Number of Villages.* | *Total Beegahs.* |
|---|---|---|
| Boksar, (Roodurpoor Kilpoory,) | 247 | 7,90,950 |
| Bukshee, (Nanuk Mutta,)..... | 139 | 3,83,300 |
| Chinkee, (Surbna, Bilheree,) .. | 121 | 3,15,400 |
| Casheepoor,..... | 139 | 4,86,800 |
| Suhujgeer, (Juspoor,) ..... | 59 | 1,58,400 |
| Moondia, (Bazpoor,) ..... | 81 | 2,38,500 |
| Guddurpoora,.. ..... | 83 | 3,31,200 |
| Grand Total, .... | 869 | 27,04,550 |

* Only 40,000 rupees collections are mentioned in *some* of the records, but it is doubtful whether these referred to the whole or a part of the Turace.

† Nuggur Kote is the *town* of which Kote Kangra is the citadel.

‡ Kishna Nund Udkaree also possesses very old lists of Turace villages and their beegahs, but no account of *cultivation* or of *ploughs*.

In the years 1666-67 Saka 1744-45 A. D., the Rohillas twice invaded Kumaon under their two leaders *Nujeeb Khan* and *Peinda Khan*. Though their stay was short,* its ill results to the province are well and bitterly remembered, and its mischievous, though religiously zealous character is still attested by the noseless idols and trunkless elephants of some of the Kumaon temples. The first irruption was only arrested in the very heart of the hills on the downs of Ghyr Mandee,† near the sources of the Ramgunga. Here the Raja of *Gurhwal, Pruteep Sah*, checked the further progress of the Rohillas and turned them back by a bribe of three lacs of rupees to their leaders, and thus the holy land which owned his Kumaon neighbour and himself as its princes and guardians, was relieved from its first contamination by Mahomedan contact.

The second invasion, caused by the discontent of *Ali Mahomed* at the small spoil brought down to him, was stayed at the very entrance of the hills at *Baro Kheree* Pass (between *Bhamouree* and *Bheemtal)* where the Rohilla force was routed by the minister *Seeb Deo Joshee* and his highlanders who had seen too much of such visitors in the former year to allow them again to surmount the *Gaghur* range. It is generally believed that the Rohillas were incited to both attacks by some domestic traitors of the *Rotela* tribe, one individual of which, by name *Hunmut Singh*, had been put to death by the Kumaon Raja for rebellious conduct. The complete expulsion of these predatory foreigners from the open plain of the Turaee was found too difficult a task for the Paharee arms, and hence recourse was had to other means. *Kullian Chund* himself repaired to the camp of the Emperor, then pitched at *Sumbhul*,‡ and implored for aid against his enemies. At that time (1747 A. D.,) the extraordinary power obtained by the Rohillas had

* Those who object to the hill people of Almora, as being unaccountably and foolishly scrupulous on the subject of kine killing forget that Benares, Muttra, and other Hindoo localities have been for centuries under direct Mahomedan rule, whereas Kumaon never had one of "the faithful" as its immediate lord. The only Mussulmans formerly known within the hills were certain families of shikarees and cooks, who received favor at the hand of the Rajas, the former for killing game and ridding the country of wild beasts, the latter for preparing suitable food for any Mahomedan guest of rank. The Raja of Bhurtpoor still entertains a similar class of purveyors.

† Near this spot is the beautiful country-residence of the Kumaon Commissioner, which is highly convenient as being on the borders of both districts, Kumaon and Gurhwal, and, therefore, central to the whole Province.

‡ I believe that the *Sote* then derived its name of *Yar Wufdaar* when the pucka bridge was built for the army, the Emperor having called it "*Yar Wufadar ! dul tumun Sote.*"

greatly alarmed the Imperial Government, already sufficiently weakened by the Mahrattas and by Nadir Shah, and very strong efforts had been made to reduce them, attended with considerable success. Twenty-two descendants of the old *Kuttair Rajas* are said to have been present in camp, headed by the chief of *Thakoordwarra* and all clamorous for protection. The Kumaon Raja did not sue in vain, and the result of his visit to Sumbhul was a renewal of his *sunud** for the *Chowrassee Mal*, and the abandonment of the territory by the Rohillas (with the exception of the eastern tract at *Surbna* and *Bilheree*) besides sundry personal marks of imperial favor. Soon after his return to the hills, he died, and the year of his death (1748 A. D.,) also saw the decease of the Emperor Mahomed Shah, and of the adventurer Ali Mahomed.

Reign in Kumaon of Deep Chund and the contemporaneous account of Rohilcund to its conquest by the Nawab Wuzeer of Oudh in 1774 A. D.

9. The history of *Rohilcund* between the years 1748 and 1774 A. D., is well known. The constant conflicts between the *Soobadar* of *Oudh Sufder Jung*, and the Rohilla chiefs, attended occasionally with no small disgrace to the arms of the former (and through him to those of his master the Emperor *Ahmed Shah*,) terminated in the utter discomfiture for a short period of the latter, by the introduction of the *Mahrattas* and *Jats* into the disputed territory as the formidable allies of the *Wuzeer*. Then followed, as might be expected, the usurping occupation of Rohilcund by those very allies themselves, and the attraction to that fertile quarter of their swarming countrymen from the Deccan. The revolutions which dethroned and blinded *Ahmed Shah*; which first exalted and then brought down to death his puppet successor Alum Geer II; which linked together in the bonds of temporary amity the regicide and self-elected *Wuzeer Ghazee-ud-deen*, and many of the *Mahratta* leaders; the advance of *Ahmed Shah Dooranee* and the repetition at Dehlee of some of the horrors enacted under *Nadir Shah*; and afterwards, on the departure of the *Abdallees* from *Hindoosthan*, the overwhelming height to which the flood of Mahratta dominion attained; these events, accumulating on each other, involved the whole of upper India in anarchy and confusion, and completed the destruction of the *Mogul* Empire. As affecting Hindoosthan in general, they caused the minds of all men to be fixed on one great question, till the decision of which there could only exist two great parties, viz., who shall be masters? the *Mahrattas* or the *Affghans?* as affecting *Rohil-*

* This sunud is still extant.

*cund* in particular, the crisis of affairs united together by one common interest, the ruler of *Oudh*, then *Shooja-ud-dowla*, and the *Rohilla* chiefs, *Hafiz Rehmut Khan*, *Nujeeb-ud-dowla*, and all the minor leaders of the clan; and, for a brief period, the chivalry both of Oudh and Rohilcund was engaged in a common cause. The battle of *Paneeput* might very probably have ended in a different manner, if the *Doorance Shah* had not been thus assisted, and if he had not found on his side in that bloody field Affghans of the Hindoosthanee colony, as brave and undegenerate as his own *Abdallees* fresh from the rugged passes of Affghanisthan. Who on the evening of the 6th January 1761 A. D., contemplating that great battle field, and reflecting on its results, could have guessed or believed that the fate of India had really already been decided not five years before on an obscure swamp in Bengal? or, have foreseen that, in regard to the sceptre of Hindoosthan, the slaughter of that day had been a fruitless sacrifice; that the Affghans almost from that very hour would be strangers to the soil; that the Mahrattas, then supposed to be an almost annihilated power, would again contest the throne of India with foreigners, but of a still more distant origin and still more distinctive race; or that, finally, peace and plenty would smile on that very plain, invited to the land neither by Mahomedan nor Hindu, but by the Christians of a Western Atlantic Isle? Yet to Rohilcund at least (whereunto my tale must return) far different from peace and plenty were to be the intermediate gifts of the English race. When Hafiz Rehmut Khan, flushed with his share of the victory, returned to his own country, it may be assumed that, even if no higher aspirations for the good of his subjects expanded his breast, he still fondly hoped that the good fortune of his race and family would henceforth be permanent, that his last battle had been fought; and that he might be allowed to end his days in quiet and happiness. Alas! the lapse of thirteen short years, not all ill spent we may hope, brought to his door a totally unexpected enemy in purchased alliance with the ancient hunters of his line. If *then* at *Kutterah* on the 23rd April 1774, the victorious English General turned away in sadness from the corpse of the gallant Hafiz Rehmut Khan and reviewed with pain and disgust the results of his own triumph, the Civil narrator of this tragical revolution, however indignant at the gross mis-representations and false colouring, of facts, which, both in the senate and the library, have associated the early English name in Rohilcund with altogether unredeemable shame, and the extinguished rule of the Rohillas with every fancied virtue, —may now be excused for pausing one moment in his task,

and yielding the tribute of his deep regret over the bier of the Rohilla chief. But I must not travel further from my record. What was the effect of all the above named revolutions on the circumstances of the *Turaee?* The reign of Raja Deep Chund in Kumaon, after lasting nearly 30 years, ended in his murder in 1697 Saka or 1775 A. D. He was therefore almost from first to last a contemporary of *Hafiz Rehmut Khan,* and the catastrophies of the Rohilcund and Kumaon principalities occurred within a year of each other; or, if nothing but the crowning success of the Ghoorkhas in 1791 A. D., can be considered as the conclusion of the Kumaon Raj, the year of Deep Chund's violent death at the hands of Mohun Singh,* his spuriously descended cousin, may be recorded as *commencing* the fifth act of the hill tragedy. During the first sixteen years of his reign, Deep Chund enjoyed the advice and aid of the wise minister or *Bukshee, Seeb Deo Joshee,* to whose care the dying lips of Kullian Chund had entrusted the youthful prince. The trust appears to have been well fulfilled, and during this period the management of the Turaee occupied a large share of the Bukshee's attention. Forts were built at Roodurpoor and Casheepoor, as outposts to watch the Rohillas, and to guard the property, then far from inconsiderable, at both those places. At the former place, *Hurreeram Joshee* a Kumaonee and cousin of Seeb Deo, and at the latter place *Sreeram Doss,* a native, I believe, of Bazpore, acted as the agents of the Kumaon Government. The son of Sreeram Doss, *Nundram* by name, is celebrated, in Kumaon history, as the traitor who, in conjunction with his brother *Hur Gobind,* for selfish purposes ceded the possession of the Turaee to the *Nawab Asofh-ud-dowla,* after murdering Hureeram Joshee's son *Munooruth,* and thus obtaining power over Roodurpoor and the eastern pergunnahs. The nephew of Nundram and son of Hur Gobind, Seeb Lall, is the person whom in 1219 Fuslee the English found in power in the Turaee, and with whom the first settlement of that tract was made. We have now all the *dramatis personæ* on the stage, before the curtain drops

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* As mistakes are often made as to the relative position by birth of Pertaub Chund at Almora, and Sheoraj Singh at Casheepoor, I give their immediate genealogy.

Hurree Singh.

| 1 | 2 |
|---|---|
| Mohun Chund, | Lall Singh, |
| Mahendra Chund, | Goorman Singh, |
| Pertaub Chund. | Sheoraj Singh. |

on the scene, at the close of Kumaonese influence in the Turaee. During Seeb Deo's administration the Rohillas did not disturb in any great degree the tranquillity of the Kumaon lowlands. Their chiefs during the frequent flights which they made to the foot of the hills, when they had encountered any disasters below in conflicts with the Wuzeer's forces, formed an acquaintance with the hill Raja and his ministers, which in some cases ripened into friendship. Deep Chund and Hafiz Rehmut Khan exchanged turbans, and Seeb Deo's son, *Hurruck Deo Joshee*,—who afterwards became so conspicuous a political character at the period of the war between the British and Nepalese,—enjoyed a place of trust in the immediate household of *Nujeeb-ud-dowla*. At the battle of Panceput, Hurree Ram Joshee is said to have distinguished himself conspicuously amongst the levies brought to that place from the Rohilcund territory, and to have carried back to Kumaon an elephant and other plunder of the Mahrattas to the extent of some thousands of rupees, which the Rohilla chiefs accorded in return for the aid or good will of the Kumaon Raja at that great crisis.

Conclusion of Deep Chund's reign, troubles of that period; effects of events both in hills and plains on the state of the Turaee; and summary of events antecedent to the final separation of the lower Bhabur from the hill country.

10. The Turaee remained in a state of (comparatively speaking) fair prosperity during that portion of *Deep Chund's* reign in which the hill territory was undisturbed by internal commotions. Up to the death of Seeb Deo Joshee in 1686 Saka, corresponding to 1764 A. D., such commotions had been very partial and trifling in *Kumaon* while at the same time the plains of *Hindoosthan* including *Rohilcund* were the scene of constant disturbances and changes. The Turaee became filled with emigrants from the lower country, who had fled from the extra taxation and the multiplied masters, which the wars of that period had created. This was the first great recent immigration into the Turaee. The next extensive influx of low-landers occurred immediately after the accession of the *Nawab Wuzeer*, as above related, to the sovereignty of Rohilcund, and continued till the tyranny of the new reign had somewhat over-past, and till (after the second Rohilla war with *Fyz-oollah Khan*, who himself brought large numbers of people to the jungle where his entrenchments were formed) the lower districts became again fit for the habitation of peaceful and industrious people. Thus, at first tolerable good Government at one place, and intolerably bad Government at another, contributed to the occupancy of the waste lands of the *Kumaon Bhabur* by natives of other districts; and, a few

years subsequently, the *Ghoorkallee* invasion of Kumaon, and the civil wars which preceded that event, drove down numerous mountaineers to the same quarter, and made Casheepore, Roodurpore, Kilpoory, and other frontier towns and villages the emigrant settlements of numerous individuals, whose political importance or wealth rendered them peculiarly obnoxious to the evil of a revolution, and whose stay on the hills had become incompatible with their safety. We may, I think, date at this period the planting of the numerous mangoe groves,* in the Turaee which now so frequently surprise the sportsman in spots, where wild beasts occupy the place of human inhabitants, and swamps lie over the sites of villages.†

The death of Seeb Deo by violence in a military *emeute* at Casheepore occurred, as above recorded, in 1686 Saka or 1764 A. D., and from that time I much doubt whether the dependency to the hill *state* of Kumaon of the whole Turaee (except a slip of forest at the very base of the hills) did not cease and determine. While that minister survived, the rent roll of the *Chowrassee Mal Pergunnahs* is recorded to have been, *as follows:* but there is strong reason to believe that both in the time of *Shooja-ud-dowla,* and in that of his predecessor *Sufder Jung,* the *south-eastern* extremity of the Kumaon Bhabur had fallen into the hands of the Wuzeer or the Rohillas, and that the Kumaon Raja was merely considered in that quarter as *nominal zumeendar* or *jagheerdar.*

*Pergunnnhs at present attached to Zillah Mooradabad.*

| | | | | |
|---|---|---|---|---|
| Jusspore, .. .. .. .. .. .. .. .. | 50139 | 0 | 0 | |
| Casheepore,.. .. .. .. .. .. .... | 95648 | 0 | 0 | |
| Bazpore, .. .. .. .. .. .. .. .. | 55664 | 0 | 0 | |
| | | | | 201440 0 0 |

*Pergunnahs now attached to Zillah Bareilly.*

| | | | | |
|---|---|---|---|---|
| Roodurpore, .. .. .. .. .. .. .. | 72207 | 0 | 0 | |
| Guddurpore,.. .. .. .. .. .. .... | 48654 | 0 | 0 | |
| Kilpoory, .. .. .. .. .. .. .. .. | 40000 | 0 | 0 | |
| Bilheree, Bindara, Nanukmutta, .. .. .. .. .. .. .. | 75910 | 0 | 0 | |
| Surbna, .. .. .. .. .. .. .. .. | 25000 | 0 | 0 | |
| | | | | 258771 0 0 |
| Total Rupees, | | | | 860219 0 0 |

* There are other groves of older date no doubt, as there are ancient wells and *chubootras*, remains of aqueducts and the like; but the existing groves for the most part do not appear older than 60 or 80 years.

† Some Puthan families were great benefactors of the Turaee for a short time, and the large gools and gardens which bear the name of *Jungee Khan* and others attest their former influence, especially in Bazpore and the western pergunnahs.

Of this total sum Rs. 1,32,000, were estimated as the Raja's share, supposing the sovereignty of the Kumaon ruler in this tract to have been a reality; or, *proprietary profits*, supposing him to be entitled only to the name of *zumeendar*. Out of this royal share or revenue (the greater part of which was collected in kind) the military assignments to the *Nuggur Kotias* and others were paid, and Rs. 40,000 are (I believe with complete truth) mentioned as forming the highest amount remitted to Deep Chund's Treasury at Almora.* In the earlier times of the Turaee, the Raja dealt more directly with the cultivators of the soil, and the intervening tenures, religious, maafee, military and the like did not exist; hence the large amounts recorded as *revenue*. In regard to the cultivators, the Raja's share was considered to be a sixth of the produce; but this fact would militate greatly against the stories handed down of the *Nowluckha Mal*. Fifty-four lacs worth of produce in the narrow slip of the Chowrassee Mal would indeed have entitled it to a high rank among the many so-called gardens of India.

The remaining portion of the rental, enumerated in the statement, was collected for the benefit of some few Brahmin maafeedars and some hill temples; but principally at that period by the headmen among the hereditary *chokeedars* of the Turaee, who had been gradually introduced into the territory from the time of Baz Bahadur Chund's visit to Dehlie. In the south eastern extremity of the Bhabur, the race of *Burwaicks*, and in the same direction nearer the hills the *Joolias*, and, in the western pergunnahs, the *Mewattees* and *Huirees* (Mussulmans) were the guardians, but in fact the possessors of the soil; and a system of "black mail" was thus introduced, the evil effects of which remain to this day, and which during its continuance rendered the sub-mountain tract the general safe resort of the banditti, at the same time that it gave protection to a portion of the community, those who could afford to pay the insurance fees thereof,—and saved others from outrage and plunder only by making them connivers, through sheltering and concealment, with the worst of criminals. Hurruk Deb Joshee,† and Jyekishen Joshee succeeded their father as ministers, and, soon

* It is also highly probable that some portion of this amount was collected on account of *Katbans*, or timber duties in the forest lying to the *north* of the Chowrassee Mal, and still included in Kumaon.

† The direct lineal descendant of this personage called by Mr. Fraser "the Earl Warwick, or king-maker of Kumaon" was, I am sorry to say, living in very reduced circumstances, and without a pension at Almora, while others with smaller claims were provided for. He has lately however been appointed Tehseeldar of Kalee Kumaon.

after, both Casheepoor and Rooderpoor were plundered by predatory bands of Puthans, who are stated to have found a large quantity of booty at those places owing to the temporary inhabitancy thereat, of the earlier emigrants of whom I have spoken.

The years between 1764 and 1775 A. D., formed a period of trouble and distress in Kumaon, which, however has its parallel in every native state, and the natural consequences of which were the final foreign invasion which took place 16 years afterwards in 1791, and the intermediate visitations of mercenary troops brought into the province by the partizans of the several factions. A summary of events for this period exists in the agent's office at Almora, and is contained in a report, dated 20th October 1814, by Mr. W. Fraser, who appears to have received his chief information from *Hurruk Deb Joshee*.

The following extract is made from the report,* explaining quite sufficiently for the present purpose the revolutions of that period within the hills.

## EXTRACT.

"The eldest son of Seeb Deo Joshee, Jyekishen, succeeded "ed him in his office and situation as prime minister and vice- "roy, in which place he continued for two years and a half, "when a son was born to Deep Chund, the Raja. On this "event the mother of the boy, considering that in consequence "of having a son she had some claim on the regency, intrigued "with Hafiz Rehmut Khan of Rampoor through Jodha Singh "of Kuttair, to whose son the daughter of the Raja was be- "trothed, and who was a favorite servant of Hafiz Rehmut "Khan, to set aside the authority and viceroyalty of Jye- "kishen, who retaining his office, should obey the command of "the Ranee. Through the interest of Jodha Singh, Hafiz "Rehmut was prevailed upon to speak to Jyekishen, and he in "disgust and disappointment resigned all his situations, and "retired from the government. The Ranee then bestowed the "situation of Bukshee, or head of the army, upon Mohun Singh, "the post of prime minister upon Kishen Singh, the Raja's "bastard brother, and the viceroyalty on Permanund, a para- "mour of her own. Jodha Singh gained the management of "Casheepoor, a large pergunnah. About a year after this, the "Ranee deprived Mohun Singh of his appointment and insignia "of his office, bestowing them upon her favorite paramour.

* Evidently a translation.

"Mohun Singh fled to the Rohillas, and through the assistance "of Doondee Khan of Bissoulee, who was jealous of the power "and influence Hafiz Rehmut Khan exercised in Kumaon, "gathered a body of troops and Rohillas, attacked the capital, "Almora, defeated the Ranee's troops, and eight months after "his expulsion, obtained possession of the Raja's and Ranee's "persons, and established himself in the government. One "of his first acts was to put to death Permanund his first "enemy, and about two years afterwards, during which time he "continued quite paramount, he put the Ranee to death. When "this act was known, Hafiz Rehmut Khan again sent an army "with Kishen Singh, the brother of the Raja, who had fled when "the Ranee was killed, expelled Mohun Singh, and put the au-"thority into the hands of Kishen Singh, who with the assistance "of Jyekishen and the old respectable officers of the govern-"ment, carried on business for four or five years. Mohun "Singh had fled to the camp of Zabeta Khan, and subsequently "to that of Shuja-od-dowlah. Kishen Chund the viceroy of the "Raja, fell into bad hands and paying attention to favorites dis-"honored many of the old respectable servants of the government. "These people considering that Mohun Singh, although expell-"ed, would not desist from disturbance and intrigue, agreed to "call him and put the government into his hands to be exer-"cised in the name of the Raja, and with the assistance and "advice of Jyekishen, Mohun Singh being thus placed in "power, in the course of the second year, put the Raja and "all his family into confinement, treacherously murdered Jye-"kishen,* and established himself firmly in the government. "This usurpation seemed bad in the eyes of the Rajas of "Gurhwal and Dotee. They leagued with the discontented "people of Kumaon and the injured family of Jyekishen, one of "the oldest and most respectable of the high officers of Kumaon, "collected a large force, defeated and expelled the usurper, "and established *Purdoomun Sah*, the second son of Sulut Sah, "the then Raja of Gurhwal, upon the Rajship. *Purdoomun* "*Sah* reigned nine years, propped by the old officers of the "state, among whom the most noted were *Jeanund*, *Gudadhur*, "and *Hurrukdeo*, of the family of Sedeo and Jyekishen: after "this lapse of time, Sulut Sah the Raja of Sreenuggur dying, "the brothers, Jye Kurrut Sah, (who had succeeded to the Raj-

* At that time Nundram and others had possessed themselves of the Turaes nearly to the foot of the hills, and Mohun Singh invited Jyekishen to his camp near Chokum (some miles above Chilkia) to arrange for a common defence of the Turaee against the lowlanders. Jyekishen fell into the trap, came to camp, and was assassinated.

" ship of Gurhwal on the death of his father, Sulut Sah,) and " Purdoomun Sah, (who had been set up in Kumaon,) quarrelled. " Jye Kurrut Sah was desirous of establishing Mohun Singh in " Kumaon to the prejudice of his brother, having been bribed " by him; and Purdoomun Sah was naturally anxious to expel " his elder brother, and establish his younger and full bro- " ther *Puracram Sah* at Sreenuggur. In the mean time, Jye " Kurrut Sah died, and Purdoomun Sah, leaving Kumaon " against the will of all, went to take possession of Gurhwal. " He wished indeed to leave his younger brother Puracram Sah " in Kumaon, but he was equally desirous of seizing upon " Gurhwal; this strife continuing, both left Kumaon in the " charge of Hurrukdeo. Hurrukdeo being soon driven out, " collected an army in the districts of Casheepoor and Rooder- " poor, again attacked Mohun Singh, took him prisoner and " placed him in confinement, and in retributive justice for the " murder of the late Raja and all his family, had him put to " death.* He did not continue many months in possession " of the country, when Lall Singh, the brother of Mohun " Singh, receiving the assistance of Fyzoollah Khan, of Ram- " poor, entered Kumaon and drove Hurrukdeo and his party " to the frontier of Gurhwal, where receiving assistance from " Purdoomun Sah, he repelled the invading Rohillas, and regain- " ed possession of Almora, the capital. Puracram Sah, how- " ever, always unsteady and unreasonable, took the part of Lall " Singh; and Hurrukdeo, deprived of his assistance, retired " with honor to Sreenuggur. Lall Singh, however, did not " reign long; a year or a year and a half after, the Ghoorkha " power invaded the country, when all the discontented people, " and particularly the family of Jyekishen and Hurrukdeo, " took refuge with them, and rejoiced in Lall Singh's final " expulsion."†

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* Mohun Singh was beheaded in the temple called Narain ke thân, two miles to the north of Almora, on the hill called " Mount Browne," and " Hurreedoongra "

† This report must throughout be taken *cum grano*, for, though true in regard to the main facts, there is throughout a strong bias against the family of Mohun Singh and Lall Singh, and an equally strong partiality towards the great rival family of the Joshees. There is also one omission; viz. that Hurrukdeo at one time set up a nominal Raja, a near relation of Deep Chund, and called him *Seebchund*, afterwards degrading him, and there is one exaggeration; viz. that Mohun Singh gave up Almora to Rohilla rule; whereas this was not exactly the case; Mohun Singh employed mercenary Rohilla troops, who occupied at times the capital, so also did Lall Singh, and so did *Hurrukdeo*, and afterwards the British—but in all these visitations the Brahmins governed both Almora and the province, and the Rohillas never even had a mosque for their prayers. Hurrukdeo's rescue of Almora was thus after all not so very great an act of patriotism, as the report would appear to make it.

The murder of Munoruth Joshee, the agent of the Kumaon government at Rooderpoor, by Nundram of Casheepoor, an event previously glanced at, combined with the treacherous murder of Jyekishen Joshee, by Mohun Singh, as narrated in the above extract, placed the whole power over the *Bhabur* tract at the disposal of *Nundram* and his family, and he took the best steps for securing his position, by making terms with the *Nawab Wuzeer* then *Asoph-ud-dowlah*, and by becoming *ijaradar* of the territory under that ruler. After two or three week and ineffectual struggles in the field with the *Ghoorkhas*, *Mahender Singh*, and his uncle *Lall Singh*, were finally obliged to abandon the hills, and settled at Kilpoory in the Turaee under the protection of the Nawab Wuzeer, obtaining thereby, a guarantee for the retention by the family on some doubtful kind of tenure of some portion of the tract over which their ancestors of the *Kumaon Raj* had ruled, and which, as far as any actual *jagheer* was concerned, was subsequently exchanged for the grant of *Chacheit* situated in a more southerly direction. Between 1791 and 1802 A. D., when the cession of Rohilcund to the British Government took place, the Goorkhas were too much occupied within the hills to bestow much attention to the old low land territories of Kumaon; but they attained for some time possession of *Kilpoory*, and they were afterwards driven out by the forces under *Ata Beg* and *Sumbhoo Nauth* sent from Bareilly; aid having been implored by Mahender Singh and Lall Singh, who had been forced to flee to Lucknow,* and the danger on its northern frontier in *Rohilcund* having become a source of deep anxiety to the *Oudh Durbar*. Casheepoor then became the principal residence of the exiled family; but *Rooderpoor*† was also often visited, and from their statements it would appear at that time to have been a flourishing place. *Raja Pertaub Singh*, indeed, informs me that even until so late a period as 1815, when the march of the British troops to the hills combined with other visitations, more especially of banditti, harassed the inhabitants by requisitions and losses of all kinds; that place could boast of 1200 *Brinjarrees* with their equipage, 200 hackeries and their owners, 200 weavers and 700 families of *Choomars*, *Koomars*, *Lohars*, &c., in addition to a large agricultural population, and the numerous occasional followers of his father and uncle, with other exiles from the hills.

* *Hurrukdeo* about this time (1797 A. D.) was in attendance on Mr. Cherry at Lucknow and Benares, and endeavored to interest the British authorities in favor of the hill Rajas against the Goorkhas.

† Rooderpoor was partly ruined by the establishment of the Hill Mundee of Hubdwanee, 20 miles nearer the hills, and then *completely* by the swamp caused by the Nawab of Rampoor's bund at Manpoor.

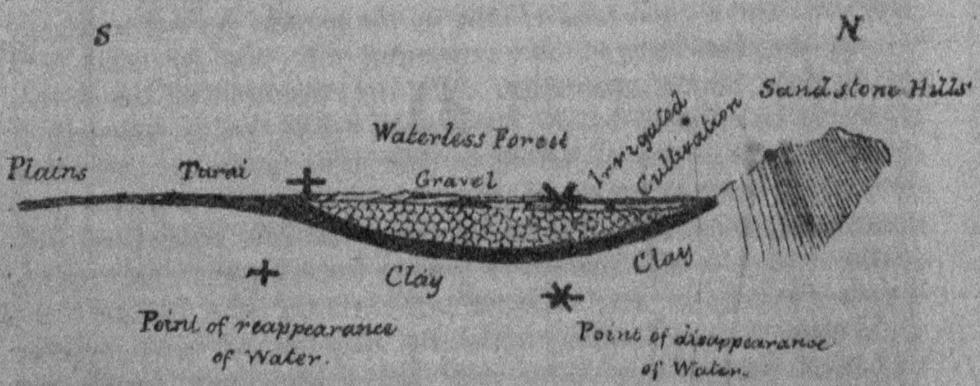
11th. I have thus brought to a conclusion the history of Kumaon, chiefly in connexion with its dependencies in the lower Turaee, otherwise called *Bhabur*, *Munes* and *Mal*, by the Paharrees; and I believe that, however unimportant the information thus given, it is for the most part new. Knowing little, I can tell little of the further history of the Turaee, and it would be presumptuous in me to intrude on ground which at present belongs to the *Plains* authorities. The abstract of all the intelligence acquired by me on this subject may however be briefly recorded. The rule of the Nawab Wuzeer in the *Mal Pergunnahs* was on the whole beneficial, but chiefly on a negative point of view. The bad government of districts naturally more adapted for culture and habitation drove large colonies of people from the south to a region, where the back-ground of the forest and the hills could always afford a shelter against open oppression; where the nature of the climate was not such as to invite thereto the oppressors into whose hands a whole fertile and salubrious land had fallen; and where also on this very account the rulers who did exist found it their interest to conciliate and attract all new-comers. The management of the territory in question by Nundram and Seeb Lall is generally well spoken of, except in the matter of police, but even in this latter respect, the mismanagement was not more injurious to society than the state of affairs in regard to the *forest banditti* became in times not far distant from our own. I believe that it may be confidently stated, that at the commencement of the British rule in Rohilcund, there existed in the Turaee a greater number of inhabited spots than there existed 30 years afterwards in the same tract; that more and more careful cultivation was visible in every direction, that the prairie, if not the forest had retreated to a greater distance, that the *gools* or canals of irrigation were more frequent and better made; that more attention was paid to the construction and management of the *bunds* on the several streams; and that, finally, on account of all these circumstances, the naturally bad climate, now again deteriorated, had somewhat improved. While recording this statement, I must not omit to add that I myself possess no positive separate proofs that my assertions are correct; but that I write under the influence of almost universal oral testimony, supported, nevertheless, by this circumstance; viz., that the revenue statistics of the tract under discussion, shew a *descending* scale in regard to the *income of the state*, a product which under general rules, bears an approximately regular pro-

The Government of the Nawab Wuzeer and of the British Reflections thereon, and on the state of the country with allusions to that part of the *Bhabur* still included in Kumaon. Conclusion.

portion to the amount of prosperity in a country. Nor must I omit the fact, that the *Boksa* and *Tharoo* tribes are extremely migratory in their habits, and are peculiar in requiring at their several locations more land for their periodical tillage, than they can shew under cultivation at one time or in one year. To these tribes is in a great measure now left the occupation of the Turaee territory; so that *now* for every deserted village, there may be perhaps found a corresponding newly cultivated one, within the same area, and large spaces of waste may intervene, where under the present system no room for contemporaneous cultivation is supposed to exist, the periodical waste or fallow also, in that peculiar climate presenting as wild and jungly an appearance as the untouched prairie. In the times, on the contrary, which I have advantageously compared with our own, the fickle and unthrifty races whom I have named were not the sole occupants of the soil; all the number of contemporaneous settlements was therefore greater, and the extent of land required for each was less. I therefore come round in due course to the next fact (the obverse of that first stated) that as bad government in the ordinarily habitable parts of the country introduced an extraordinary number of ploughs into the borders of the forest-tract, so the accession of the British rule, by affording a good government to Rohilcund, re-attracted the agricultural resources to that quarter, and proportionately reduced the means of tillage in the Turaee. Such is my general position, but local circumstances also added to the deterioration, and amongst these an allusion on my part is all that is necessary or proper, to the hasty and perfunctory mode of settlement adopted in the earlier years of the British rule; to the disputes, in and out of Court, concerning zumeendaree rights between *Seeb Lall* and *Lall Singh*; and again between the latter and his nephew *Mahender Singh's* family; to the continued bad police management; and perhaps more than all, to the neglect and indifference of the English revenue officers, who were scared away from the tract by the bad reputation of its climate, and only occasionally attracted thither by its facilities for sport.

In fact the sum of the whole matter is in my opinion this; that, even long neglect in other quarters can by a change of system be speedily remedied, but that, in the peculiar region of which we are treating, a very brief period of neglect or bad management is sufficient to *ruin* the country. Its physical character has been well described by others, but more especially and directly in the recent irrigation report of Captain Jones,

and incidentally in the lately discovered and published geological report by the late Captain Herbert.* Under the base of the hills, surface irrigation from the several streams that issue therefrom, can be carried on without difficulty to a certain distance on either side of them by means of water-courses taken off at different levels, this distance or point of non-irrigation being determined by the slope of the country, and the absorbing or retaining qualities of the soil, and consequently by the place of disappearance of water in the several rivers. Hence in the *Upper Bhabur*, so long as an agricultural population can be found, extensive patches of fine cultivation will always exist; but at wide intervals and with but a short prolongation to the southward. Then succeeds the *ookhur bhoomee*, or *dry* region of forest and grass, beneath the shallow mould and enormous gravel-beds of which, at an hitherto undiscoverable depth, flows the drainage of the lower mountains; the point of re-appearance of water in the river beds, and the rushing out of the multitudinous springs being determined by the thinning out of the porous gravelly *detritus* and the approach of the clay or *impervious stratum* to the surface thus:




Lower Turaee.

The *Lower Bhabur*, or special *Turaee*, succeeds, and reflection and observation both shew that, if left to itself, this region must become one of swamps and malaria, and only partial cultivation;

* Journal Asiatic Society, Volume XI., the Map published with Volume XIII.

whereas if carefully watched, its evils of climate may be vastly amended, and its agriculture be only limited by its amount of population. A careful guidance of the waters from their several sources would prevent the formation of the swamps on the lower edge of the forest. The rapid slope of the country causes the streams to push along the superficial gravel, mixed with trees and vegetable mould, and thus to form at last an obstruction *a-head of themselves*. This causes numerous windings of the streams, and at every corner a back-water swamp is produced, which would have had no existence, if the current had been carefully conducted, or if the obstructions in its course had been removed, or an opening through them been made. In the same manner the proper placing of the several *bunds* on the streams, and a proper attention to outlets of canals thus formed, would prevent the evils now arising from embankments which enrich one village, or set of villages, at the expence of the whole neighbourhood; and from water-escapes, which irregularly flood all the adjacent lands, and create grass, *koonduls*, and swamps for tigers, deer, and hogs, while they drive out the human inhabitant.

These are common illustrations, and are sufficient to prove my argument for the absolute necessity of official and even scientific attention being paid to the physical character of the *Lower Turaee*, the additional benefits of a good revenue management, and a good police being *at the present period* assumed, I trust that the force of this argument will not be weakened by its not being originally. The improvement of the *forest-tract* can be effected by the cutting of broad roads through it to the several points of access to the hills and by extension of the *Paharee clearings* at its northern edge by a better and more economical distribution of the available means of irrigation. But, it still remains a matter for science to determine, whether except in the case of large rivers (for instance the Ram Gunga, and Kosilla,) which on account of their volume and force escape absorption into the gravel, any canals can be taken off from *common streams*, at their exit from the mountains, and *carried continuously* through the forest. If they can, I would be content to sacrifice some portion of the partial cultivation carried on by the Hill men at the immediate foot of the Hills, by means of their numerous separate water-courses. If they cannot be made, so as to bring a *large and continuous portion* of the forest and prairie into cultivation, I am hardly prepared to recommend much interference with the present system of irrigation in the *Upper Bhabur*, however wasteful, in the mere attempt to prolong a mile or two further

the Paharee cultivation, and to add to the number of villages paying almost nothing to the State, while they decrease the pasture grounds required by the herdsmen both of the plains and the Hills, at that very portion of the forest where the means of supplying water to the cattle alone exists.* As however, the subject of the *Kumaon Bhabur*, as distinct from the *Rohilcund Turaee*, will form the subject of a separate report in the ordinary course of my official duties, and as the upper tract is quite prosperous enough not to require any immediate special remedies, I here drop my pen.

(Signed) J. H. BATTEN,
*Senior Asst. Commissioner,*
*Kumaon Proper.*

*Almora, 9th October,* 1844.

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* The forest here alluded to is almost utterly useless for timber, though its pasture grounds are admirable. All the valuable timber is now confined to the foot of the Hills and to the lower range, and the *Sissoo* Islands in the river beds. This is a fact little known, but quite true.

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# REPORT ON THE BHABUR

OF

# KUMAON PROPER,

FORMING

# PART II OF TURAEE REPORT,

BY

J. H. BATTEN, ESQ.,

*Senior Assistant Commissioner and Settlement Officer.*

Introduction concerning the Statements.

*Para.* 1. The tract which remains to be described, does not require a long and separate *History*, and its fiscal importance is too small to call for an elaborate *Revenue Report*. The Statements herewith forwarded speak for themselves, and I trust that the sanction of Government to the jummas detailed in the Abstract Statement No. 4, may be early obtained, and thus, the necessity of any more balance reports and remissions be obviated. I shall now proceed to offer a few explanations on some of the assessments which appear in the Statements illustrated by a brief description of the several puttees which have come under revision of Settlement.

Name and dependency of the Bhabur puttees.

2. The 'Bhabur' at the foot of the hills formed a portion of the adjacent *Hill* pergunnahs rather than of the Chowrassee Mal division described in the foregoing pages. The tract which borders on the Kalee or Sardah river immediately below its exit from the mountains, retains the name of the hill puttee, *Tulla Des*, to which it adjoins. Bhabur *Chobhynsee* is only the lower part of a puttee bearing that name in pergunnah Dheeaneerow; while the puttees of Bhabur *Chukata* and Bhabur *Kotah* are equally portions of Hill pergunnahs similarly designated with only this peculiarity that the lower tract gives

its name to the upper, in the case of Kotah. The Bhoksar villages still attached to Kumaon, and situated at the lower edge of the forest, where the springs re-appear, form an exception to these remarks. These clearings must certainly have belonged to the Chowrassee Mal; and when the boundary between the Kumaon and Rohilcund Turaee was determined 20 years ago, Mr. Traill appears to have included within his own district those portions of the *lower* forest and prairie which were thought to be more in the real or nominal possession of the *Paharrees* than in that of the *Desees*, or in which the Bhoksa and Tharoo tribes preferred the hill jurisdiction, (as many of them still do) or were at all dependent on hill capitalists and farmers. This arrangement, though now inexpedient to disturb, (owing to the difficulty of fixing on a new boundary after all the trouble which was incurred in demarcating and surveying* the present line of separation), has been found inconvenient with reference to the collection and stability of revenue on the one hand, and to police matters on the other, but chiefly so in those localities where the cultivation of the plains and that of the hill Bhabur touch each other, and where the inhabitants on both sides are mutually interconnected. Wherever a belt of forest, however thin, has been left to the south of the hill jurisdiction, these inconveniences are less felt, and the Bhoksar villages form a less anomalous feature in the Kumaon Bhabur.

Survey.

3. The survey operations under Moolchund the intelligent Mohurrir † deputed to Kumaon by the late Major W. Browne, did not extend to the eastward beyond the Nadore, or Dewa river; because previous to the settlement the number of waste villages in that direction far exceeded that of the cultivated clearings, and because his services were urgently required in the western divisions of the Bhabur. The calculations of area and cultivation in Tulla Des and Chobhynsee with the exception of those in the villages of the latter puttee named in the margin * (which had been previously surveyed by Moolchund) were all made under my own tuition by means of my tehseeldarry establishment after the first year of the new settlement. They may be considered as bearing a very fair approximation to the truth. Since that time the cul-

* *No.* *Village.*
18 Nallye.
4 Choorgulleea Mulla.
5 Choorgulleea Tulla.
11 Lukmun ke Munde and Daklee lands.
17 Puchoula Huldoa.

* *Vide* the boundary maps in the Commissioner's Office prepared by Messrs. Halhed and Traill in 1826.

† 1849, now Tehseeldar of Sreenugur.

tivation has been more than doubled, and the separation of each clearing from the surrounding unmeasured forests, which remain at the disposal of Government, has become more distinct. Moolchund, who is now employed as an assistant to Captain Jones, the Engineer Officer in charge of the irrigation and embankments in Upper Rohilcund, has not yet been able to furnish me with the result of his labors in the shape of a correct general map for each of the pergunnahs (Kotah and Chukata) which he has surveyed. But I expect these maps at a very early date, and, when forwarding them, I shall venture to recommend the extension of the survey at no distant period to the country lying between the Dewa and the Sardah rivers. I retain in my own office as being almost daily required for examination, the separate maps of the settled mouzahs with which Moolchund furnished me; and I close the subject of survey until my despatch of the general pergunnah maps shall render further illustrations and remarks necessary.

Description of Tulla Des.

4. Bhabur Tulla Des lies along the right or west bank of the Sardah as far as the junction of the Sunneah stream with the large river. Commencing from Birmdeo on the north, the length of the puttee may be estimated at about 18 miles, while its breadth from east to west averages 10 miles. The southerly extension of this division is, however, narrowed almost to a point above the junction of the Sunneah; and near the deserted beds of the Kalee or Sardah, the land is too stony for any agricultural purposes. The island or islands called *Chandnee Chouk*, the uppermost parts of which are opposite to the Kumaon bank of the river above the Sunneah, (at Bunbussa) formed for some years the subject of dispute and correspondence between the authorities of Luknow, Pillibheet and Kumaon. The Kumaonees, partly supported by Mr. Traill, claimed the whole island, although its southern-most extremity extended to Moondea Ghât in the Pillibheet district; which place is 12 miles below the Sunneah. The question had been decided by Government in correspondence with the Rohilcund authorities in the year 1839,* but the authorities in Kumaon appear to have been left in ignorance of the decision, *which gave the disputed region to Oudh*, and some show of possession was still kept up by the hill jungle farmers. However, in 1842, I authoritatively excluded the Sardah islands from the leases of the Kumaon farmers, and no dispute has subsequently arisen. This tract is chiefly valuable on account of the fine sissoo forests which

* G. G. O, February 20th 1839.

still remain there, while elsewhere this timber has lamentably diminished both in size and quantity. For further particulars of the Chandnee Chouk dispute, I beg to refer to my letter to the Commissioner of Kumaon, No. 28, dated the 9th February 1843. Tulla Des differs from the rest of the Bhabur in the absence of surface irrigation from *gools* or water-courses. The bed of the Sardah is far below the level of the country; and any canal taken off from that river at or near Birmdeo would enrich the plains of Pillibheet and Bareilly, rather than those through which its earlier course would be directed.

The Sunneah stream flows along the southern edge of the tract, separating it from the pergunnah of Bilheree; while the beds of the Jogeoora which intersects the puttee, and of the numerous torrent-ways which unite to form that stream, are almost dry in those parts where irrigation would alone be possible from their waters. The smaller streams which issue from the hills, and run south eastward to join the Kalee in the upper portion of Bhabur Tulla Des, have so inconsiderable a body of water in their channels before they are lost in the gravel, that irrigation from them to any extent is found impracticable. A little is attempted from two small streams at Busteeah and Geenda Khullee immediately at the foot of the hills; but the quantity of water after February is said to be only sufficient for drinking purposes. In this puttee, however, the tract of waterless forest (described as *Ookhur Bhoomee* in the preceding report) is very narrow and thereby presents a great difference from the western Bhabur, while without possessing the features of a regular *Kadir*, it approximates in character to the country adjacent to the Ganges in the Suharunpore district below Hurdwar. Here, as there and in talooqua Chandee, the digging of wells is found, practicable within a short distance of the hills. It may, therefore be assumed that the great bed of rolled stones underlying the Bhabur is deepest in the centre of the country which separates the Ganges from the Sardah, and that the porous gravelly detritus thins out as the land slopes down to either of those great drains. In none of the Tulla Des villages, however, is irrigation from wells attempted, and (except in the rains when the *sotes* or small streams become full and capable of embankment) the Tharoos of the lower part depend on the rains and dews of heaven, and on the natural dampness of the soil, for the moisture which their crops require. During the winter and spring months, two great *mundees* or marts for the exchange of hill and plains commodities exist at *Birmdeo* and

*Sunneah*, and they are a source of prosperity to the Kumaon and Pillibheet traders. On the opposite side of the Sardah, the Goorkah bazaar called *Soor Mundee* affords during this season one of the busiest and most interesting scenes in Upper India, a great part of the produce of the Joomla mountains, and Dotee being brought thither. The Zemindars of Kalee Kumaon are essentially a trading people, and, during their winter migration to the Bhabur, they rarely join in agricultural pursuits, preferring to engage in the traffic of the three mundees above named.

Assessments in Tulla Des.

5. In this Bhabur, the following mouzahs belong exclusively to malgoozars of the adjacent mountain villages, Sheala, Jhool, &c., and have Paharree cultivators.

| *No. in Statement.* | *Name.* | *Jumma.* | | |
|---|---|---|---|---|
| | | *Rs.* | *A.* | *P.* |
| 1 .. .. | Birmdeo, .. .. ... .. ... .. | 41 | 0 | 0 |
| 2 .. .. | Busteea, ..... ... ... .. .. | 70 | 0 | 0 |
| 3 .. .. | Beoora, .. .. ... .. ... .. | 11 | 0 | 0 |
| 6 .. .. | Chela, .. .. ... ... .. .. | 18 | 0 | 0 |
| 10 .. .. | Geenda Kalee, .. ... .. ... .. | 44 | 0 | 0 |
| 15 .. .. | Coocholee, ... ... ... ... .. | 20 | 0 | 0 |
| | Rs. | 204 | 0 | 0 |

In all these (but chiefly in Nos. 2 and 10) *khurreef* cultivation is attempted, the cultivators actually coming down to the fields after sun-rise and again mounting their hills at sun-set, the night air between May and October, being considered fatal. Birmdeo itself, or rather Moondeas (the former place being only a shrine with a few fields attached, the latter being the site of the Mundee and the Ghât) is less dangerous in its climate than the other spots, as the bank is well opened to the river and is high and comparatively dry. But even there it is found difficult to keep up a small police chowkee during the unhealthy months. In this respect, the Bhabur of Tulla Des suffers in comparison with the jungle tracts in Kotah and Chukata, which are never entirely deserted even by the Paharees, and where some of the police stations are almost safe from the *worst* and most deadly attacks of malaria. There is no doubt that the insalubrity of the Bhabur increases greatly with the extension of the tract to the eastward, and that it

reaches its *minimum* on the west bank of the Jumna, perhaps, however, the *Doons* which exist in the western regions take off at a moderate elevation a great part of the noxious influences which would otherwise be concentrated on the lower plains at the base of the first ranges; and the absence of Doons above the eastern Bhabur may tend to account for the extreme unhealthiness of the latter tract. Be that as it may the trading habits of the Kalee Kumaonees, the absence of irrigation, and the bad climate preclude, in my opinion, all hopes of our seeing Tulla Des as flourishing as Chukata. In the mouzahs above named, the changes in the jumma have been inconsiderable, and do not call for particularization. They have in every instance undergone revision, and in some cases alteration by the Commissioner. The tenure of the land in these estates follows the hill custom obtaining in the parent villages, and is *bhyachara*. The leading Pudhan is Meg Singh *Shalia*, now that Juwahir Singh and Lall Singh, the heads of the *Joolial* family are dead. Lower down we came to

| *Number.* | *Name.* | *Highest new Jumma.* |
|---|---|---|
| | | *Rs. A. P.* |
| 4 .. .. | Bunbussa, .. .. .. .. .. | 20 0 0 |
| 7 .. .. | Chundnee, .. .. .. .. .... | 25 0 0 |
| 11 .. .. | Goodmee, .. .. .. .. .. | 15 0 0 |
| 14 .. .. | Sonukpoor .. .. .. .. .... | 16 0 0 |
| | Rs. | 76 0 0 |

In these villages the Pudhans are hill men and the assamees are Tharoos. Nos. 4 and 7 formed the subject of repeated reports* in the balance department; and in the new settlement a considerable decrease in the jumma was found necessary, though in No. 7 the change in the Pudhanship from a poor to a richer member of the Joshee family, which owns the village, has enabled me to fix a *Russudee* jumma somewhat approaching to the former amount. No. 14 has been let to a farmer but belonging to the same family as at Chundnee. There also the jumma is *Russudee*. In all the remaining mouzahs of the 29 which form this puttee, the malgoozars (5 in number) are inhabitants of the plains and farm the several villages for Rs. 74. Their cultivators are Tharoos. Some of these estates are still

* *Vide* Balance Reports, since 1839.

waste, but I was compelled to accept the best offers I could obtain, though some of the speculators are men of doubtful enterprize, or are more profitably engaged elsewhere. The chief and best is *Bhowan Singh Burwaik*, but he and his assamees, so long as they can obtain land in the now prosperous pergunnah of Bilheree, are not likely to make any strenuous exertions for the recovery of the waste lands on the north of the Sunneah. The whole jumma of this puttee* was at first fixed by me in 1900 Sumbut, (or 1843-44) for 20 years, but all the malgoozars without exception at once accepted the terms of the quinquennial lease from 1902 Sumbut, or 1845-46. Their agreements to this effect are filed in the settlement misls. The statements represent the period as septennial in order to include the two years which preceded the new arrangements. As this Bhabur is still to be surveyed, a short period of settlement is just as expedient here, as in Chukata and Kotah, where although a survey has taken place, other causes have led to a shortening of the leases. I conclude this account of Tulla Des, and its revenue affairs by mentioning that it owes all the agricultural improvement it may display, to the 30 years of British rule; as during the Goorkha times there were no cultivated spots at all, and few Paharrees and fewer plainsmen ventured into the tract. This reflection may console us when contemplating the present Lilliputian scale of the revenue statistics, and the expenditure of time and labor which has been incurred in their settlement.

Description and settlement arrangements in Chobhynsee bhabur.

6. Bhabur Chobhynsee extends from the Sunneah Nuddee on the east to the Sookhee river on the west, which divides it from Chukata. Within the intervening region (commencing from the eastward,) we find the Kamnee river and its small tributaries, the numerous affluents of the Dewa river, the Dewa river† or main drainage itself, and its great branch called the Kylas, and finally some small torrents which join the Sookhee.‡ The puttee may be estimated at somewhat more than 30 miles in a straight line, from the Timlee pass to Usnee, and the breath varies from 6 to 12 miles or more. Yet in this extensive tract we only find 845 acres cultivated, in the first year of settlement, and at the seventh year we only expect to collect Rs. 815§ Government

* Final Jumma Rs. 354 final decrease Rs. 55.

† The Gurra of the plains.

‡ The eastern Bygool of the plains.

§ Highest new jumma Rs. 815; final decrease Rs. 134.

revenue. I may, therefore, be excused for avoiding much prolixity in my account of this division, more particularly as the balance reports annually furnished by me since the year 1839 have been very full on the subject of the waste villages. Of these only nine remain unsettled, and the loss of revenue, (if the wiping off of uncollected revenue can be called a loss) amounts on their account to Rs. 73 as shewn in the detailed statement. This deficiency is met by Rs. 68 gained in nia-abad mouzahs from which, however, Rs. 10 must be deducted as belonging to Kulluga (No. 24 of the Statement) a clearing which though now newly recovered was before its ruin, assessed at Rs. 10.

From the 28 villages divided amongst the 19 pottahs of the Chobhynsee Bhabur, (those named under Nos. 1, 2, 3, 6, 7, 8, 10, 15, now yielding a jumma of Rs. 81 per annum, and settled to yield Rs. 156 per annum in the fifth year from this time,) the collection in 1899 Sumbut, only amounted to the sum of Rs. five (Rs. 5) and the balance was Rs. 361. No. 2 Bhoomkee Betallee fell entirely waste, for the farmer Chundree Burgullee who tempted Mr. Traill to accept his offer of an increase of Rs. 100 on the jumma of 1885 Sumbut for the dakhlee lands of Gungapoor, ousted the old Pudhan and his assamees, and yet, after all, neglected entirely the estate and soon required a total remission of revenue* for himself.

I made my settlement with Gulab Pudear the old ousted malgoozar, and in the 6th " and 7th" year he has consented to pay Rs. 78 in conjunction with the new Pudhan of Gungapoor.† He has already increased his cultivation to 110 beegahs. He is a Paharree of Dheancerow, but his assamees are Tharoos. This is the only mouzah which on account of the great decrease in its jumma calls for special notice, among those newly recovered from waste, and it affords a lesson as to the wisdom necessary to be exercised in accepting offers for increased jumma in those tracts where the cultivators are poor, fickle, and migra-

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* Rs. 251.

† No. 3, formerly included in No. 2.

*Highest new Jumma.*

| | |
|---|---|
| Betalee | 40 |
| Gungapore | 38 |
| | Rs. 78 |
| Former jumma | 251 |

tory, and where the malgoozar has no proprietary rights. Had Mr. Commissioner Traill left the revenue at a moderate sum, we should probably have collected that amount annually up to the present time, instead of having a long balance sheet, and a ruined village in the back ground, and a precarious revenue of Rs. 78 in prospect. Besides No. 2 thus described, the villages named under Nos. 1, 3, 6, 7, 10, 12, 14, 19 in the Chobhynsee statement now possess Paharree malgoozars and Tharoo assamees, whilst in Nos. 8, 13 and 18, the Pudhans and the cultivators are both inhabitants of the plains, chiefly Tharoos and natives of the neighbouring pergunnah of Nanuk-Mutta. Some of these villages are already showing a great increase of cultivation. The situation of these mouzahs is principally in that part of the forest through which the numerous tributaries of the Dewa proceed, but one or two as No. 12 (Ludcoora) are south and west of that river, and adjoin the villages of the plains. If I could have obtained them, I would have much preferred to have settled all the villages with Desee Pudhans like Boodh Sen, Tharoo of Mujhold and Tewarree Bhoksa of Nully. In Nos. 4, 5, 9, 10, 11, 15, 16, and 17 the malgoozars and the cultivators are all Paharrees and belong to the adjacent hills. In all these wildly scattered lands, there is some khurreef cultivation, and a few of the most hardy Paharrees and Hâlees in every clearing venture to remain and look after the rice fields. Irrigation is easily carried on by means of small gools taken off from the little streams which are so plentiful in this division, and no great embankments are required. Some of the clearings, however, are less advantageously situated in this respect, and there the rubbee crops are the staple produce. Bhabur Chobhynsee is peculiar in not swallowing up all the streams which pour into it from the hills. A great majority of these flow through the green forests, not unlike English brooks in the *clearness* and *depth* of their water; (though some few are mere beds of torrents;) and hence arise the excessive thickness and rankness of the vegetation in this tract. Some of the cane brakes, and acacia* thickets are absolutely impenetrable, preventing all cross paths from clearing to clearing. East of the Dewa, the country presents a series of Savannah-like vallies between high elevations, some of the latter covered with sal forest, and all cut up by ravines and utterly waterless. These heights and hollows run down in a parallel southerly direction from the hills. The whole country on this account resembles the Turaee of Kote Kadir and Kheree in the Bijnour and Suharunpoor districts,

* *Khyr*—"acacia catechue".

but on a gigantic scale, whether in regard to the forest the Savannahs, or the ravines. The clearings occupy the several hollows here alluded to, and hence the more plentiful supply of water, than is enjoyed by the people of our western Bhabur, where (outside the lower hills at least) such irregularities of the surface are unknown. There are no mundees in Chobhynsee, but a few Bunneeahs have established themselves at Joulasal, a principal pass from the hills in the centre of the puttee, and sell grain to the timber cutters and other visitants of the forest. Perhaps this place may ripen into a regular mart, as the clearings become more cultivated and frequented, and the paths for the use of man become more plentiful than elephant tracks. The Dewa river (called *Nadore* in the hills,) rushes out of the valley of Doorga Peepul, (almost a Doon) and its waters are rapidly taken up by the Paharrees for the irrigation of the following mouzahs.

| | | |
|---|---|---|
| Chorgullee Mulla, | Lukmun ke Mundee, | Puchwa, Khera, |
| Chorgullee Tulla, | Sela Bhabur, | Puchonea, Huldoo. |

The two first named mouzahs belonging to Chundree Burgullee, and Buchee Burgullee and their brethren, Paharrees of Dheeaneerow, show a very fine sheet of cultivation, and now yield (comparatively speaking) a respectable jumma of Rs. 225; but their quarrels among themselves and with their neighbours lower down, interfere considerably with a proper and economic distribution of the means of irrigation, while the malgoozars of the plains, pergunnah Kilpooree (which here approaches the hills nearer than at other places) complain that the hill men monopolize the supply of water. In this tract the climate is much better than that east of the Dewa, and the whole character of the country begins to resemble Chukata, at which puttee we now arrive, after passing the little streamlets that join the Sookhee, and crossing the principal one at Usnee.

* Description and assessment of Chukata Bhabur.

7. Bhabur Chukata extends from the Sookhee river on the east to the Bhukra on the west, a distance of 25 miles or thereabouts, while from the foot of the hills to the boundary of the Pillibheet district the breadth varies from 15 to 20 miles. The Gola river nearly equally divides, and forms the main characteristic of this division. On the N. E. extremity close to the hills there are a set of small villages, the chief of which is Jham with its daklee lands, (No. 26 of the Mouzawar Statement,) watered by the numerous tributaries of

the Sookhee, the bed of which river itself is dry in the upper and middle part of its course through Chukata. In the N. W. corner and along the foot of the mountains, the great clearing of Futtehpoor, (No. 39 of Mouzahwar Statement,) owes its prosperity to the waters of the Bhukra river, and the cultivation might extend a mile or two further, if the villagers were not distracted by intestine quarrels. Punncala No. 38, Peepul Pokra, No. 46, and the adjacent clearings in that direction are partly watered by small hill streamlets, but the former mouzah also forms the extreme western verge of the Gola irrigation to which we now arrive. Occupying the upper centre of the puttee, we find on either side of the Gola river* a beautiful line of clearings irrigated by their several gools from that river, and displaying in the spring season a rich sheet of mustard and wheat cultivation reaching to about six miles from the hills on both banks, a small belt of jungle, however remaining in the immediate vicinity of the river bed. This bed is very broad and stony, and during the cold and hot season is entirely dry at the fourth mile from its debauche into the plain. This phenomenon would not, I believe, cease to occur, even if the Paharree gools had no existence, although the greater body of water then left in the upper bed might enable the stream to avoid absorption for a mile or two further, but certainly not more. Hence although a slight extensive of Paharree cultivation is prevented by the present wasteful system of separate gools, no injury to any plains pergunnah arises from the appropriation of the Gola waters at their head; the nearest plains village (in Roodurpoor and Kilpoory) being 12 miles from the lowest possible point of surface flow, and 16 miles from the nearest spot at which (supposing such a water-course *could* retain its water through the thirsty forest,) any canal could be taken off for the benefit of the lower country. These observations are equally applicable to the case of the Bhukra, Bhola, Dubka and Kurra rivers in Kotah which on a smaller scale resemble the Gola in Chukata. They are less applicable to the case of the Dewa river in Chobhynsee, because there, as before mentioned, the plains villages approach those of the hill men, but even there the Engineer would be a bold man who would undertake to carry the water down to the *Des*, and would despise the risk of ruining the *Bhabur* cultivation and the hill revenue (such as it is) at the head, without increasing the prosperity of the country below. I need only refer to the correspondence on Bhabur irrigation which has already taken place, and some part of which has been printed by autho-

* The Kitcha of the plains.

rity, as shewing that the hill officers were expected to lay down certain principles for the future management of the head waters. Unless my facts above detailed in allusion to the Gola river be utterly erroneous, the *conclusion* arrived at must be that it is henceforth idle to complain in general and loose terms of the monoply of water by the hill men. If a body of plains men whether Tharoos, Boksas, or Desees exist or may henceforth spring into existence, who can beneficially occupy the upper tract *above the point of river absorption*, and by their superior means, skill and industry can not only add to the agricultural products of the Bhabur (by the introduction of sugar-cane and cotton, for instance,) but can also contrive to carry the cultivation to a considerable distance in the forest, then by all means the Paharree grasp of the Bhabur ought to be weakened, and every lawful means adopted to convert the Paharrees exclusively into hewers of wood and drawers of water for others, and into mere herdsmen of their own cattle. But alas! no such people are to be found, and the Collectors of Pillibheet and Moradabad would be too happy to find a population sufficient to conquer the difficulties of *their own* Turace pergunnahs.

The Desees prefer their own fruitful and salubrious Des. The Tharoos and Boksas, devotedly attached to their "*Natale Solum*" in a region of swamps, are seduced only by twos and threes into some of the Bhabur clearings, and affect to pine away when brought into the view of clear streams and high lands; while any capitalists who may occasionally venture to take the lease of a Bhabur mouzah, immediately set about hunting for *Paharree* assamees, and settling on their waste lands *Puharree Got'hs*, or cow sheds, swarming with a host of men, women and children who use the Bhabur for the purposes of *hybernation*, or, as they themselves would say "eating sunshine." The *principle*, therefore, arrived at is "to leave well alone" and no further to interfere with the system at present obtaining than to do what is absolutely required for the proper settlement of *new* clearings in the forest, and for the judicious decision of cases which may arise in the *ordinary* course of litigation; in short, to do all for the people by the machinery of authority (under whatever form or name) which their own clannish animosities and ignorant selfishness will not allow them to do for themselves. Further interference in the shape of a regular enforced plan of irrigation in the Bhabur is not in my opinion barred by the decretal orders in regard to such matters of the late Commissioner Mr. Traill, or by any indisputable rights on the part of those to whom these orders refer. But such systematic interference

is rendered inexpedient by the fact that no measures of the kind alluded to (such as the formation of one general canal for each side of the river, and an establishment of public servants to superintend the distribution of water and guard the several water-cuts) would so extensively benefit *the whole community* as to justify the disturbance of present possessions. It would be a poor gain to shew one mile more of cultivation along the public road between Bhamource and Tandah (however gratifying to European travellers) in the possession of some new fellers of the woods, and to leave the old inhabitants and first subduers of the soil, in situations more remote from the public eye on either side of the Gola, disheartened and discontented, and pleading (whether truly or falsely) the diminution of their water resources as an excuse for decreased cultivation, and for revenue balances. In my letter to the Commissioner of Kumaon No. 178, dated 7th September 1843, I fully detailed the arrangements made by Mr. Traill for the supply of water to the Chukata villages, and gave a list of 27 mouzahs on both sides of the Gola in which the gools were divided into those running during the day time, and those allotted to the night. I also forwarded a rough sketch of the several water-courses. In the present settlement I got rid of a great many difficult cases by offering the refusal of all lands, for which nia-abad durkhasts were pending, to the Pudhans of the *nearest* adjacent mouzahs, and increasing the revenue of the latter in proportion; thus, as it were, forcing the possessors of gools to extend their cultivation in order to prevent the intrusion and probable trespass of new comers. This plan also tends to prevent the numerous disputes which arise, from the *paths* to the forest pasture. Ground, long used by the inhabitants of the older clearings, being stopped by the new *fields* of strangers. The actual mouzahs for which separate nia-abad pottahs have been issued, are only 8 in number, yielding a revenue of 168 rupees, while the new land, brought and likely to be brought into tillage, by means of old existing gools, and under the management of old existing malgoozars, bears a satisfactory proportion to the whole appropriated area. In *this* Bhabur there are a good many villages which have existed from the time of the Chund Rajas, and been occupied by the principal landholders of the hill puttee. Of this number we find Khera, * Deoola Mulla and Tulla, and Kooapoor, on the left bank of the Gola, belonging to the Myhra family; and Bhamouree Mulla,† and Tulla, Bhitoria, Futtehpoor, and Punealee, on

* Nos. 32, 14 and 29.
† Nos. 6, 7, 3, 29 and 38.

the right bank, belonging to the Sone and Hyrée families, all from the neighbourhood of Bheemtal. During the Chund and Goorkha times, however, the prosperity of these villages was very precarious, owing to the great insecurity of life and property, which were only partially preserved by the payment of "black mail" to the head men of the Mehwattee* robbers. When the British rule introduced an improved police administration (though till recently a very defective one) we find the Naicks and other inhabitants of the Ramgurh mountains *behind* the Gaghur ridge descending into the plains, and appropriating the lands, next below those above named. To this class belong Mookhanee† and the two Huldwanees, Koosm Khera,‡ &c., &c. As at the time of their first settlement, there was a large quantity of spare water, and the great subsequent influx of cultivators into the Bhabur was not expected, the monopoly of the means of irrigation by the Naicks became excessive, while notwithstanding their rapidly increasing cultivation the revenue of the villages was retained at nia-abad rates. These remarks are particularly applicable to *Mookhanee*, which I found to be paying a jumma of Rs. 65 on a cultivated and irrigated area of 462 acres. Even after raising the jumma to Rs. 170 the mouzah is still assessed at less than the average new rates (6 as. 4 pie,) of the pergunnah, and its cultivation is rapidly increasing. Captain Jones, the present Superintendent of embankments, in his letter to my address (which appears among the printed papers on the Rohilcund and Kumaon irrigation,) dated 15th March 1843, alludes to the Mookhanee gool, and he chiefly founded his estimate of the possible capabilities of the Gola on his examination of the unfair proportion monopolized by the Mookhanee and Huldwanee Naicks. As, however, in the same report, that Officer allows 25 per cent. loss for absorption in case of the water being carried below these villages, I believe that I have adopted the most prudent course in leaving the management of the irrigation in the hands of the existing parties. In my report contained in my letter No. 225 dated 21st December 1844, I entered into a full argument concerning the advantages of a quinquennial settlement for the Bhabur; and His Honor the Lieutenant Governor on the 6th of March 1845, sanctioned that measure, immediately after which, the actual settlement commenced.

* Captain Raper in his "Narrative of a Survey to the Sources of the Ganges in 1808" speaks of Bhamouree as a "Mehwattee Colony."—*Vide Asiatic Researches, Vol. XI.*

† Nos. 37, 30, 31. ‡ No. 30.

Where the whole revenue is so small, a detail in this Report of each separate assessment appears unnecessary. I have not attempted an equalization of rates, and it will be found that in those mouzahs such as Khera, Deoora, Juggetpoor, Koosm Khera, &c., where the greatest increases of jumma have been effected, the rates are still very low indeed. I trust, however, that the general result will be considered fair, both to the Government and to the people. The increase of jumma, (total Rs. 841,) still leaves the rate of assessment in Chukata lower than that in Kotah, and too low to stand as a proper jumma for 20 years, though at the end of the quinquennial settlement I am not prepared to recommend a *large* increase of jumma, now that the principle of impartiality has once been vindicated, and the monopoly of resources met by the imposition of a proportionate burden. In the nia-abad mouzahs, agreements have been taken from the Pudhans concerning the diligent cultivation of their estates, and the condition of curtailment or forfeiture, has been superadded, in case the close of the quinquennial period should shew unfavorable results in regard to the recovery of waste ground. The decrease of jumma (total Rs. 85,) has all occurred in small isolated villages removed from the main line of the Gola as Nos. 1 and 36, or in Boksar villages, as No. 11. These last have been alluded to in para. 2 of this Report, and in Chukata are only 6 in number, viz. Boorha, last numbered, Bunkuttee, No. 4, Binkhera, No. 2, Huraya Tanda, No. 23, Neiagaon, which is the principal Boksar settlement, No. 35, and Kulliahkeog, No. 28. All these lie along the southern extremity of the *forest* between the Bukra river, and the Gola river. They are all miserably situated in regard to climate, and their present almost waste state is not likely to be remedied, so long as the neighbouring mouzahs in pergunnahs Rooderpoor and Gudderpoor are in want of assamees. Some of these villages are under farming leases, but *the* rest belongs to the Boksas who inhabit them. There are no Tharoos in this division. In all the upper and central portion of the Bhabur Chukata, the inhabitants are entirely Paharees. In the old settled mouzahs the tenure is bhyachara, as in the hills, and the several sharcholders either cultivate their lands themselves, or take their chance every season of finding temporary tenants and laborers among the large population, which comes down annually to the Bhabur. In almost all the nia-abad mouzahs, whether of Mr. Traill's time or mine, the tenure is zumeendarree, and the proprietary right is vested in the malgoozar, whose family first obtained the pottah. Three-fourths of this cultivation belong to the rubbee season, but in every mouzah

there are some fields dedicated to the khurreef harvest, which are tilled and cared for by hâlees and other low-caste men who have for some years made the Bhabur their home, and have become acclimatized.

The Kotah Bhabur.

8. The Kotah Bhabur extends from the Bukra river on the east to the Kotee Rao torrent on the west, where it adjoins Ghurwal, a distance of 35 miles or more. At the south eastern extremity, it extends very far into the plains, bordering on the Gudderpoor pergunnah of Pillibheet and a portion of the Rampoor jagheer, from which point it narrows considerably in the forest tract below Neiagaon and Kummolah till it reaches the Cosillah near Gyhooa, beyond which on the opposite side of the river the hill Bhabur extends only a few yards further than the actual base of the mountains. The puttee may be divided into—

*First.* The *Boksar* villages, Bhelah, &c., included in No. 29 of the Mouzahwar Statement, and belonging to the great zumeendaree of Motee Chokrait, son of the late Laljee Chokrait.

*Second.* The Bhabur villages lying *outside the lower hills* such as Neiagaon, Kummolah, &c., of the above named zumeendaree, Kaleedoongee, No. 16, Muddum Bel, No. 24, Poorunpoor, No. 33, and Goolzarpoor, No. 44, &c., &c., &c.

*Third.* The villages in the *Kota Doon, within the lower hills,* such as Putulleea in Motee Chokrait's zumeendaree, Gynthee, No. 10, Nowda-Bummumgaon, No. 25, Dhoonea, No. 26, Patkote, No. 30, Rampoor, No. 34, and Ownlakote, No. 37, &c., &c.

*Fourth.* Scattered villages *at the mouths of the several passes,* such as Polgurh, No. 31, Buheir-Purewah, No. 2, Khearee, No. 17, Gyhooa, No. 11, and Dikolee, No. 40, &c.

*Fifth.* The *hilly* tract called *Kuttah,* lying between the Cosillah and Ramgunga rivers, occupied by occasional patches of tobacco, turmeric and ginger cultivation, without any fixed villages. To this tract belong Amdunda, No. 39, and its Daklee lands, Khunnua, No. 18, Bijranee, No. 42, and Huldoo Khera with its numerous Daklee lands. Nearly all the remaining villages not included in the above described divisions, may be considered as belonging more to the hills than to the

Bhabur; Chookum, No. 6, the great rice valley on the Cosillah, for instance, being situated 10 miles above Dikolee ghât.

The *first* tract is tolerably prosperous and some of the Boksar sub-Pudhans are intelligent and active men. They are not entirely pleased with their inclusion in the Chokrait estate; but they do not possess means and confidence, and freedom from debt sufficient to allow them to debate the question of proprietary right with Motee Chokrait, whose tenure of these lands, I may observe, is less substantiated than that of his remaining ilaqua.

The *second* tract is watered by the Bhola, Khurra and Dubka rivers, with the help of some smaller streams. The extension of cultivation in the neighbourhood of Kaleedoongree on the left bank of the Bholah, will probably reach its maximum within the next five years; for, this set of clearings is enclosed on one side by the numerous dry stony beds of the Nihal river, so conspicuous on the Nainee Tal road, and, on the other side by the beds of the Bholah itself. The formation of a mundee or rather a bazaar at Kaleedoongree, and the increasing resort to Nainee Tal, are however, calculated to augment the prosperity of the inhabitants in this corner of the Bhabur, if care is taken to preserve them from the bad effects of Coolee-impressment, and similar evils attendant on a new European Settlement on the hills. On the west bank of the Bhola, Captain Jones has shown in a statement, dated 29th January 1845, which he forwarded to me, after an examination of the country kindly made by him at my request, that the means of irrigation at the disposal of Motee Chokrait ought to enable that zumeendar to bring under tillage more than 3000 acres beyond the present quantity. It is fair, however, to add that in this tract it is very difficult to obtain assamees on whom any reliance can be placed, as the hill country, immediately behind Kotah, is not populous, like Chukata, and the Paharees who resort to the Bhabur do so chiefly for the purpose of pasturing their cattle. The climate, however, being much superior to that of the Chukata Bhabur, it is to be hoped that the good effects of the Nainee Tal station and new roads to that place, will be felt in the addition of cultivators to the Neiagaon and Kummeolah clearings. Still the inroad of the plough into the Kotah forests will, owing to the scarcity of water, even at the highest estimate be always inconsiderable, and the eye of the traveller will, I fear, remain ungratified with the sight of flowing canals, and rich corn-fields on the road from Mooradabad. Bunderjoora and the other villages at the foot of the

lower range do not appear to require a separate notice. East of the Dhubka the *third* tract or Doon, is exquisitely beautiful, shewing a sheet of cultivation 8 miles in length by 3 and 4 in breadth, dotted with mangoe groves, and emulating *on a small scale* the rich central plateaux of the Deyrah Doon, both in appearance and climate. The revenue of this tract has been proportionately good, and it will be observed that I have made no great changes in the jummas. The inhabitants are all Paharrees, and the tenure is for the most part zumeendaree, though in a few instances the actual cultivators possess proprietary rights in their fields. Some of the Pudhans are highly respectable men, and far from poor, but owing to the vicinity of wild elephants and other intruders from the forest, they do not attempt except very rarely, to produce on their lands anything more valuable than wheat, barley, rice, and the coarser cereal grains. Under more enterprising hands, the Doon would probably become a grand field for growth of cotton, sugar-cane, and indigo, while the ginger and turmeric cultivation might be largely improved. West of the Dhubka, which river here irrigates only its eastern banks, the Doon is chiefly a sâl-forest with patches of cleared ground, with the exception of Patkote and Rampoor, the extensive lands of which are beautifully irrigated by the waters of the Bahmunee river.

The *fourth* tract, or ghât villages, are generally prosperous and resemble those described under the second head.

In the *fifth* division of the Kotah Bhabur, attention may probably be drawn to the extraordinary small jummas as compared with the great number of Daklee lands named. But an examination of the country shows merely a series of hills and ravines, almost without water, which sufficiently explain the absence of revenue capabilities. The inhabitants and visitants of *all* the above described divisions of Kotah (exclusive of the Boksar tracts) belong to different parts of the hills, and not only to the upper puttee of the same name. As my report on Chukata embraces most of the points noticeable in Kotah, I here close my special remarks on the latter division. The Settlement Statement of Land Revenue shows that in Kotah an actual increase of 185 rupees has been made in the jumma, of which 84 rupees are the product of nia-abad lands. For the quinquennial period, the several jummas of Rs. 4,877, 4,884 4,892, 4,892, 42,892, &c., will I hope be considered fair, considering the varied character of the whole tract submitted to settlement. The amount of cultivation according

to the survey being 9,488 acres, the rate of the highest jumma per acre somewhat exceeds 8 annas, and in comparison to Chukata the rate is far from low, although Kotah for the most part possesses the advantages of a richer and deeper soil, and more easily supplied though not more copious, irrigation. As far as any fiscal pressure on the people is concerned, no fear need, I hope, be entertained, and I have been confidently informed both by native officials and the native agriculturalists themselves, that in Chukata and Kotah, the majority of villages are able to pay their Government revenue entirely from the produce of their *mustard fields*, while others consider the crops of *Cheena (panicum meliaceum)* or the intermediate crop between the rubbee and khurreef, as amply sufficient for that purpose, the wheat and rice harvest being, therefore, a source of pure profit.

Sayer revenue and abstract account of revenue and assessable area.

9. The *Sayer* revenue derived from the *Katbans* and *Churaie* farms in the whole Kumaon Bhabur amounts to Rupees 18,729,* and the period of settlement commencing last May is made coincident with that of the land revenue. As the highest amount of the latter stands at rupees 8,953, the total cess on the low country attached to the hill jurisdiction between the Ramgunga and the Kalee rivers, will amount in 1906 Sumbut, or 1850 A. D., to rupees 27,682. The quantity of cultivated acres hitherto ascertained, is recorded at 18,447 acres, while the total area actually appropriated and no longer at the disposal of Government, appears from the statements to be 1,75,383 acres. With these facts before them and with the aid of the detailed statements, I trust the higher revenue authorities will be able to recommend

| * *Name of Puttee.* | *Jumma of Katbans or timber duties.* | *Jumma of Churaie or pasture dues.* | *Total.* |
|---|---|---|---|
| Kotah, .. .. .. .. .. .. .. .. .... | 4600 | 3801 | 8401 |
| Chukata, .. .. .. .. .. .. .. .. .. | 1451 | 2650 | 4101 |
| Kalee Kumaon, .. .. .. .. .. .... | 3705 | 2522 | 6227 |
| Total, .. .. | ..... | ..... | 18729 |

the settlement now forwarded, for the sanction of Government, and that I may be permitted to forward with the maps alluded to in the third paragraph an appendix to the present report, containing any description of the country which may have been omitted; all possible explanation concerning the total area, and the requisite statement of police arrangements.

(Signed,) J. H. BATTEN,

*Senior Asst. Commissioner and Settlement Officer.*

KUMAON SETTLEMENT OFFICE,
*Almora, the 10th Feb.* 1846.

# APPENDIX

TO

# MR. BATTEN'S REPORT

ON THE

# BHABUR.

No. 18.

FROM J. H. BATTEN, ESQ.,

*Senior Assistant Commissioner, Kumaon,*

To G. T. LUSHINGTON, ESQ.,

*Commissioner of Kumaon.*

*Kumaon, the 6th February,* 1847.

***Revenue.***

SIR,

Bhabur and district Maps.

With reference to the promise contained in the final paragraph of my report on the Bhabur Settlement, dated the 10th February 1846, I have the honor to forward for transmission to the Sudder Board of Revenue, North Western Provinces, two Maps, viz. of the Kotah and Chukata tracts respectively, which, if approved, will I hope be lithographed, and the copies allowed to be purchased like the other revenue survey records. With a view to a similar object, and with reference to a similar promise made in my settlement letter, dated the 6th March 1846, when forwarding the fiscal results of the whole revision for the hill part of the province. I have also sent herewith a sketch of the whole tract attached to the Kumaon Commissionership, and its situation with regard to the adjacent territories.

Bhabur Maps.

2. The original sketches for the Bhabur, were drawn up by Moolchund, the native surveyor, but however correct, were not in a state fit for the examination of superior authority, much less for being printed, but the kindness of some Engineer friends has now enabled me to forward copies of a superior kind.*

Map of the province of Kumaon.

3. The Map of the province† was prepared from an old office copy fast going to decay, left by Mr. Commissioner Traill, but with many additions and corrections, especially in regard to the main mountain ranges, and water sheds of the rivers, and with the omission of numerous unimportant names of places, which only serve to confuse a sketch of the kind, and the insertion of which in Captain Webb's Map (No. 66, *Company's Atlas*) has together with other defects, rendered that work in parts somewhat unintelligible. The lower tracts bordering on the plains have also been added with an useful approximation to truth in regard to the position of the Doons which characterize the sub-Himalayan regions, west of Kaleedoongree. The several snowy passes by which the communication between this province and Thibet is kept up are all inserted by name, but the only part of Hoon Des which I have attempted to sketch is the region of the great Hindu-lakes to which the recent visit and discoveries of Lieutenant H. Strachey, 66th N. I., have given an increased interest. That officer's sketch of the whole of our northern frontier now under preparation will, I hope, render any further notice of Bhote by myself unnecessary. With the exception of the snowy peaks, the elevations of which have been noted in strict accordance with past surveys, I have omitted the heights above the sea of the places named, as their insertion would only crowd the Map, and tell no useful tale in a country where, for the most part, in the space of a few miles, can be found any elevation between 8,000 and 3,000 feet respectively. The sites of the chief iron and copper deposits in these hills have been marked, and the relative positions of the sanataria of Mussoorce and Naince Tal, have also been given, not I believe, before some mention of those places in a Map was required.

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* The Maps themselves fully explain the distribution of the area.

† 1849. *Vide* preface to the present compilation as to the materials, from which the Deputy Surveyor General has prepared the new Map now printed.

4. Connected with the subject of the sayer revenue, Rs. 18,729* now collected from the Kumaon Bhabur, (a subject which it is my intention to investigate much more fully during the present season, with reference more especially to the experiment of Kham tehseel management recently attempted with success on the Dehra Doon,) I may be expected to say something concerning the saul forests still existing in this district. On the one hand a report has gone abroad that a *wanton* destruction of these forests has been permitted, and that before long a scarcity of timber (especially for public purposes) will be experienced, unless some check to the evil apprehended be enjoined. On the other hand, it has been argued, that the taxation now levied in the form of timber duties, tends to prevent the free resort of wood cutters, and that thus the unhealthy forest is left to encumber the ground which might be more beneficially occupied by agriculture. In regard to the first point, I know nothing concerning any alleged devastations in the districts west of the Ganges, but the injury to the forest of late years in this province has now been somewhat exaggerated, and the answer on this head includes within it an answer to the second or opposite charge; for, the fact is, that in the level tracts below the foot of the hills where the extension of cultivation would be most important in a sanatary point of view, *there*, hardly one valuable timber tree is to be found, and the operations of the saul fellers are, except in a few localities, hereafter to be mentioned, confined to the lower ranges of the hills, in which alone, between the Kosilla and the Dewa any forests of that tree exist, and on which the extension of the timber trade one hundred-fold would hardly make any visible impression. Captain Ramsay would, no doubt, if called upon, give a good account of the timber still standing in the Patlee Doon and other tracts attached to East Gurhwal, and could shew that nature herself had provided, in the difficulty of the passes, a sufficient check to any wanton diminution of the forest resources. East of the Ramgunga in the Bhabur attached to zillah Mooradabad, the isolated forest of Seonathpoor is found stretching some miles southward into the plains; and although young trees are there flourishing in immense abundance, the older trees appear to have almost all vanished. At such a locality, the preservation of the timber might have been important, but there, I believe, the rights of

Saul forests.

* Katbans,..... Rs. 9,756
Chura, ..... ,, 8,973
18,729

Government have been altogether suspended, and the state derives no advantages from the thinning of the forest, which therefore may be considered objectionable on every ground. As far as my own observations extend, (and they have not been slight,) wherever such prolongations of the saul forest into the Rohilkhund plains exist, the soil so occupied is utterly unfit for agriculture, the ground being a series of ravines and hillocks and without any water discoverable below the surface. Such is undoubtedly the case at pergunnah Dheaneearow in the Chobhynsee Bhabur,* where, below the real hills, 16 sites of saul forest occur, nearly every one of which is a high peninsular tract separated from the surrounding plains by steep banks, over-hanging the intervening tract of swamp and savannah in which the few patches of cultivation are found. Very few large trees now exist on these high grounds, and the devastation by the wood-cutters among the young trees, had not when I last saw them, been very extensive owing to the circumstance of there being no main routes or great towns in that part of the Pillibheet district (Nanukmutta, Kilpooree, &c.,) which lies immediately to the southward, nor, do I believe the complaints to which I have alluded, refer to this tract. After the waste and desolation that I have there beheld, I should rejoice on whatever terms, at the resort of human visitors to the Chobhynsee forests ; and if in that locality the preservation of timber, should become a public object, some of the sites which are outside of the hills could easily be reserved and separated from the Kathans' farms. Further east at Tulla Des, there are only six patches of saul forest in the actual plains on this side of the Sardah river, and in none of these are the trees valuable ; while nearly all the sites are included in the boundaries of villages. The chief *sissoo* forests in the Chandnee Chouk islands of the Sardah do not belong to Kumaon, and unless some new division has occurred, are included within the boundaries of Oude. But undoubtedly both in Kumaon and Pillibheet and indeed every where between the Jumna and the Sardah, large trees of this kind are fast disappearing and in regard to *them* perhaps, and to the preservation of the *young* sissoo forests, it might not be inexpedient to provide some precautionary measures. To revert to the saul forests—the banks of the Kalee river just before it changes its name to Sardah on leaving the hills at Birmdeo, present a fair display of this wood, and here the work of the timber-cutter and that of the agriculturist go hand-in-

* In the Pillibheet district two notable instances of saul forest *uplands* occur at Kilpooree, at Tileeapoor, &c., and in Bilheree along the west bank of the Choka river, &c.

hand in diminishing the forest at a point where its conveyance to the plains on rafts would be convenient, though not very practicable. The villagers of Puttullcea, Kotceam, Birmdeo, Buttum, &c., are clearing this tract rapidly and find it also profitable to sell the timber which they fell to the traders at Birmdeo and Suneea mundees. As their operations lie close to the road leading into the hills from Birmdeo, perhaps it is to this point that the observations of some Government Officers apply. Hitherto no reference on the subject of reserving this tract has been made to the Kumaon authorities; while so long as the Government seigneurial dues are paid, and the timber trade of Pillibheet is supplied with material, the omission of such reference would not appear to be injurious to the public interests, unless indeed Government should wish to become its own timber merchant. In such a case, of course, the command of a large river in the vicinity of saul and sissoo forests might be important. While, however, the banks of the Sardah *lower down* at Khyragurh, and elsewere, in Oude retain their forests at points where the river is without rapids and easily navigable, it is not probable that the woods of Birmdeo and its neighbourhood, will be looked to with much anxiety, except by the traders of Pillibheet itself. The plateaux on the lower hills in which saul trees are found are called *thaplas*; these were formerly reserved for Government purposes; but when the farms began to fall in value owing to the scarcity of saul in the lower sites, Mr. Commissioner Traill abolished the restriction. Of these thaplas, eight exist in Tulla Des, and twenty-six in Chobhynsee. To the former the remarks just made are applicable; concerning the latter, which are further removed from lines of traffic. I am not myself personally able to give much information, but I have no doubt that the supply of timber could be indefinitively increased, if required, by the construction of good roads to the foot of the several passes, now rendered almost unapproachable, by the excessive thickness of the Khyr-thorn jungle. At present the chief resort is to the thaplas above Chargullia, where the debouche of the Dewa into the plains renders access comparatively easy. Until a survey takes place of the country between the Dewa and the Sardah no minute information can be presented to the eye of authority concerning the eastern Bhabur of Kumaon. As this corner of the land is the only portion of the North Western Provinces, east of the Jumna, which now remains unmapped, I trust that the services of some intelligent native assistant surveyor may be placed at my disposal, for the work, in case the temporary aid of Moolchund, now tehseeldar at Sreenuggur, should not at that time be made available. In the maps of Kotah and Chukata Bhabur, the sites of the saul forest, whether

thaplas within the hills or isolated patches outside, have all been noted. In both pergunnahs, the almost entire absence of saul (except in the immediate neighbourhood of Chounsla and Futtehpoor,) in the actual plain is most remarkable, and the traveller approaches the hills through a magnificent wood (chiefly the *huldoo*, or *nauclea cordifolia*,) hardly one tree of which is fit for any useful purpose, and the soil of which on account of the total want of water cannot be brought under tillage beyond the point to which superficial irrigation from the several mountain-torrents now reaches. Of late years the Katbans-farmers have found it their interest, themselves to construct cart roads and bullock paths into the hills as far as the saul thaplas, and thus to invite traders to their farms. Unless much greater capital is brought in to play for this kind of undertaking, there will always remain within the Kotah Doon and adjacent tracts a reserve of timber sufficient for all probable demands, and for the dissipation of all the alarming reports which have given rise to these remarks.

Katbans' duties.

5. As long as the cutting of timber in the Kumaon forests is permitted at all, so long the exaction of seigneurial dues on account of the wood or other jungle produce carried away is in my opinion defensible in every point of view, and not only defensible, but absolutely just and proper. The Goorkha Government* introduced a regular tax under this head, quite as much for the purpose of restraining the irregular collection of others, as for its own exchequer; and I feel certain that if the Government were to abolish their Katbans' duties in the Kumaon Bhabur, the jungle traders would never be able to remove the produce of their forest without the payment of dues to *some one*. In olden times the most powerful settlers in the Turaee, collected such duties as, *huq zumeendarree*, and remitted a portion to their native rulers some times as *nuzzurana* some times as *jugât*. Afterwards when the *Chokeedaree* system of black mail was introduced, the great Mehwattee 'Rob Roys' added their exactions, for the price of protection, to those of the self-called zumeendars. Within the last year or two, it has actually been proved that even the small proprietors of the villages in Gurhwal adjacent to the Turaee, in puttees Oodypoor and Ajmeer, were in the constant habit of demanding and often obtaining forest dues from the plains-traders, who resorted to the lower hills. To check this irregularity, the Gurhwal district officers have now adopted the very plan first adopted

* The later Chund Rajas of Kumaon were in the habit of receiving nearly the whole produce of the Khyr Bhuttees for their own use in *pauns*, &c.

by the Ghoorkha *baradar*, Roodur Beer Sah, in Kumaon in 1858 Sumbut; viz. declaring all such dues to be the rights of Government, and collecting them at fixed rates through the agency of a farmer.* There appears also no possible reason why Government should abandon this portion of its revenue, derived from tracts where the increase of land revenue by the spread of cultivation is from physical causes impossible. A table of the authorized jungle produce rates of collection is annexed to this Report.

Churai duties.

6. The question of the Churai or pasturage dues of Government though defensible on the same grounds as the last argued, *in regard to the probable unauthorized collections of others*, opens some difficulties. The form of its administration is also a farm, and the dues and exemptions have hitherto been, as follows:—

## DUES.

| | *Annas.* |
|---|---|
| Per buffaloe pasturing in the Bhabur per year, | 3 |
| Per cow and bullock ditto ditto, | 1 |

## EXEMPTIONS.

| | | |
|---|---|---|
| 1. | Calves of all kinds 2 years old, | Duty free. |
| 2. | All cattle actually employed in carriage, | ditto. |
| 3. | All cattle the *bonâ fide* property of a Hill Kumeen or Thokedar actually holding a Thokedaree Pottah, | ditto. |
| 4. | All cattle passing down to the plains and not staying longer than 5 days in the Bhabur, | ditto. |
| 5. | All cattle belonging to the actual Pudhans of Bhabur villages, | ditto. |
| 6. | All cattle belonging to cultivators, actually inhabiting the Bhabur 12 months in the year, | ditto. |

The dues are very rarely collected per head, the plan being to count in each *got'h* or cowshed, the *aguls* or *donas*, that is, the wooden bars to which the cattle are tied at night. The common rate sanctioned by custom is to consider each agul as containing 8 buffaloes and 8 cows liable to a duty of Rs. 2. From the word dona was derived the tax called *donia* (said to be one kutcha seer of ghee and four pice) which

* The first farmer was a well known character by name Radha Bundaree.

were paid during the troublous times, (when the Kumaon Raj of the Bhabur was being absorbed into the dominion of the Nawab Wuzeer,) to the Mchwattee and Haikree Chokeedars. The appropriate names for pasturage dues *in the hills* were "*Gheekur*," "*Gobur*" and "*Poochea*,"* and the practice of collecting them, whether for the state or the large zumeendars, extended to the Bhabur and the Chourassee Mal. Mr. Commissioner Traill found these dues existing under the head of *jugát*, at the commencement of the British rule. In the mountain part of the province, he remitted them altogether, while on the Bhabur he retained them solely as a right of Government, and managed their collection through the instrumentality of farmers. One main difficulty connected with this tax, is that in the Turace attached to the plains-districts, the pasturage is duty free, (*i. e.* far as Government is concerned): and hence arises an anomaly, which can only be explained to the people by saying that Kumaon wants revenue, while the plains-districts are rich? Numerous disputes also arise on this account with reference to the fourth exemption above mentioned. The second ought I think to extend to the cattle of Brinjarees.† The third exemption is in my opinion quite unnecessary now that no temptations are necessary to be held out, to induce the resort of influential men and their dependants to the Bhabur. The sixth exemption is a fruitful source of litigation and frauds, and it has been proposed to check these evils by remitting the duty on the cattle of *all* cultivators in the Bhabur, *whether temporary* or *permanent*. This remedy would in my opinion increase the disease, as nothing would be easier than for the Bhabur Pudhans to place a friend's name on their rent-roll, whether the latter cultivated the land or not, and thus save him the tax; and it would be difficult for the pasturage farmer to prove the fraud. Moreover, on account of the want of water, the cultivation cannot be extended (as it has been before shewn) very far in a southerly direction; while down to the point of possible irrigation, the agriculture which still exists stands in no need of more merely temporary assamees. These already abound. On the whole the Churai duties of Kumaon call (I would respectfully urge) for the further consideration of superior authority. Their two *uses* are, 1st, the realization of revenue to the state from an otherwise unproductive tract; and 2ndly, the substitution of an authorized and known tax for the irregular collections of zumeendars, chokeedars and others who might spring up (or rather re-

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* घोकर गोबर पूचीया

† Hitherto in the "Dustoor Ulamil" of the farmers, the exemption of only *cart*-bullocks is mentioned.

appear) if the Government seigneurial rights were suspended. Their *abuses* are manifold, and have been formerly represented.

Police arrangements at Settlement.

7. In this Appendix it would be improper to omit the mention of the present Police system, as enjoined by the Board in all settlement reports. I found, especially in Kotah, a clan of Mehwattee chokeedars established in the Bhabur, who divided the charge of the several villages amongst themselves, receiving such remuneration as the Pudhans thought it their interest to give, (an interest very often revived, when falling slack, by the loss of the village cattle,) and also collecting protection-fees from the timber merchants and other traffickers. By the universal acclamation of the people and police at the settlement, these chokeedars (many of whom were convicted as the ring-leaders of the thieves) were abolished; and the time was most appropriate, as the Police arrangement originally introduced during the administration of Lord Auckland, had proved eminently successful, and, *except in the chokeedaree villages*, even cattle-stealing was becoming quite rare. In lieu of the foreign chokeedars, the villagers, at my suggestion, have appointed *Paharees* or what they call *Kotewals* in the principal clearings, whose office it is to give information to the regular Police of all thefts and losses of cattle including *strayings*, (the omission of these last reports being a very sore subject with the thanadars,) and also to help the Pudhans in all cases of public supplies, and in looking after the heads of the village water-courses, &c. Their remuneration is not in land; for, that would hardly be thought a valuable consideration in the uncleared Bhabur and would be *too valuable* in the old appropriated and easily irrigated fields. The several Paharees, wherever appointed, are content with receiving grain and other produce *in kind* at stated periods. The record of the mutual agreements between the Pudhans and this class of village servants is placed among the settlement papers.

Boksas and Tharoos.

8. In conclusion, I would add one word concerning alleged origin of those singular tribes, the *Boksas* and Tharoos. The former give the same account of themselves as is mentioned in Mr. H. M. Elliott's supplement to the Indian Glossary, viz. that they are Powar Rajpoots, the descendants of Jugdeo of Dharanugger (himself the descendant of *Bhoj Raja*), who left their home and passed to the Turace on account of a dispute with their brethren. The *Tharoos* make themselves out

# REPORT

OF

## J. H. BATTEN, ESQ.,

ACCOMPANYING THE

## SETTLEMENT PAPERS

OF THE

## BHOTE MEHALS AND NORTHERN PERGUNNAHS

OF

# KUMAON PROPER.

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No. 7.

FROM J. H. BATTEN, ESQ.,

*Senior Assistant and Settlement Officer,*

To G. T. LUSHINGTON, ESQ.,

*Commissioner of Kumaon,*

*Dated Kumaon, the 30th June,* 1843.

*Settlement Dept.*

SIR,

Introduction.

As the revision of settlement in the Bhote Mehals of Kumaon Proper took place two years ago, and as in the subsequent course of appeals and references, the revenue administration and tenures of nearly every village in the tract have come under your own notice and supervision, I have the honor to propose that the confirmation of the Board and Government be now obtained for the settlement.

Puttee Mulla Danpoor.

2. Within a more recent period, the Deputy Collector has under your own eye conducted the re-settlement of puttee Mulla (or

dition. The climate indeed of some parts of this tract is during the summer and autumn months extremely mild. The whole puttee consisting of 28 mouzahs large and small, is under the headship of one individual Hurdoo, Boorha, and is likely to continue in a flourishing state under his management. The old jumma of Rs. 210, which had been unaltered for three settlements, was retained as the Government demand, and may be considered as very light. But, as numerous waste villages occur in this part of the country, a mild assessment is necessary to increase the means of the people, and foster their agricultural industry.

Puttee Tulla Joohar.

7. Tulla Joohar is the puttee immediately below the upper puttee in which lie the regular Bhotea villages, though an interval of 20 miles, of most difficult country, separates the two divisions. The fine slope from the Kallee-Moondee ridge to the Goree river is occupied by Thullut, Sooring, Gorpata, and the other villages which form the tract, known by the name of *Moonshee-apee*, the great entrêpot of trade between the passes and Bagesur. These villages are remarkably good, and possess some of the largest and most substantial houses in the province. The Bhoteas by their superior means and influence have succeeded in obtaining a large proprietary share in nearly all the villages in this tract and other parts, still lower down, of the puttee, and the original inhabitants have become in a great measure their dependants.

Revenue.

Except in the case of a few villages, situated close to the snowy peaks there are two harvests in Tulla Joohar, and both the rubbee and khurreef produce finds a most remunerating market on the spot. The pasture tracts, also, are notoriously good, and the fine breed of sheep and goats used by the Bhoteas and hill zumeendars for the carriage of salt, borax, grain, &c., is a main source of wealth to the inhabitants. In some of the villages, owing to the loss of population, bad situation, and other causes it was found necessary to decrease the Government demand, and at Toorink, a mehal of 7 mouzahs situated near the great Punjchoola peaks, which had fallen almost waste, a reduction of Rs. 42, viz., from Rs. 115 to Rs. 73, was found necessary.

In Josa and Kunulka, also, Rs. 10 out of a jumma of Rs. 21 were remitted from a like necessity.

These and other decreases were partially compensated for by small increments made in the jumma of other lightly assessed mouzahs, but still a deficiency occurred.

Revenue statistics of pergunnah Joohar.

At the time of the settlement, Deboo, the Goverment putwarree, and the principal men among the Bhoteas willingly agreed to distribute the increase necessary to make up for this deficiency among the flourishing villages of the *upper* puttee; and accordingly the settlement of the whole pergunnah of Joohar was, as in the case of Darma and Beeanse, completed by me without making any change in the *total* amount of the Government demand. However, the people subsequently became discontented with this arrangement, and on their complaint being investigated by yourself, the loss was allowed to fall on the Government, and the Bhotea villages were relieved from their additional burden. The total deficiency thus arising is Rs. 52 for the Tulla and Rs. 15 for the Mulla puttee. Though a friend to light assessments, I am still of opinion that the Bhoteas pay to Government a smaller share of their profits than the other inhabitants of the province; and that considering their increased and increasing resources, the reduction (consequent on the expulsion of the Goorkhas, and the introduction into the province of British principles of taxation) made in the revenue of the passes, as compared to that made in the revenue of the agricultural communities, was disproportionately large. Independent of revenue considerations, however, political reasons exist for depriving our frontier subjects of all grounds of complaint; and I am far from denying that the mere fact of the people having in their appeals to you, objected to that part of my settlement which I am now discussing, was a very fair ground for directing an adherence in the case of the individual villages in the Joohar pass, to the ultimate Government demand, fixed by Mr. Commissioner Traill.

Mulla Danpoor.

8. Mulla Danpoor resembles in many respects the puttee last described, but parts of the country on the Pindur river reaching to the frontier of Gurhwal, are a good way removed from any of the main routes to and from Thibet. However, the mart of Bagesur, where all the Bhoteas congregate during the winter, is not far distant from any part of the pergunnah, and with some few exceptions the Danpoorees may be considered a prosperous and thriving race. The new settlement conducted

by the Deputy Collector appears to have been quite satisfactory to them, and I trust that here as in the other puttees the formation of rent rolls, and the general ascertainment and recording of rights and liabilities, effected during the revision, will tend to secure to all classes of people, the content and happiness which they now appear to enjoy.

9. The accompanying Tables* show at one glance the revenue statistics of the settlement under report; and the details of jumma for which the sanction of Government is required.

I have, &c.,

(Signed) J. H. BATTEN,

*Senior Asst. and Settlement Officer.*

KUMAON SETTLEMENT OFFICE,
*The 30th June*, 1843.

* NOTE—1849. Not separately printed as the details are more correctly shewn in the General Statements No. IV. No. V. and No. VI.

# MR. BATTEN'S LETTER,

ACCOMPANYING THE

SETTLEMENT STATEMENTS

OF

# KUMAON PROPER.

No. 2 OF 1846.

To G. T. LUSHINGTON, Esq.,

*Commissioner of Kumaon.*

SIR,

Settlement.

I have the honor to forward three General Statements for Kumaon Proper, Nos. IV. V. and VI. the latter being one of my own suggestion, the former corresponding to the General Pergunnahwar and Jummabundee Statements adopted by the Government, and Board of Revenue for the Regulation Provinces.

2. The whole of my revision of settlement has undergone examination by yourself in the course of appeals and references; and you are aware how much I am indebted to Umba Dutt, the Deputy Collector, for the principal conduct of the settlement operations in the several pergunnahs, since their commencement in the latter half of 1842. This very circumstance, however, has led to the great delay which has arisen in forwarding the statements to higher authority; for, I could only answer for the general principles of the settlement, whilst I have been dependent on him for most of the details of assessment, and for the preparation of the necessary papers. In communicating his reasons for the several allotments of revenue, and in putting into form the results of his work, the Deputy Collector has been extremely slow, and only now have I received his reports

and statements. The utter novelty of the duties devolving on him in the record department, and his constant employment in the decision of disputes connected with the settlement proceedings, in addition to his usual business in the Summary Suit Court, are quite sufficient grounds, in my opinion, for the exculpation of the Deputy Collector from any charge of neglect or remissness in the execution of the merely formal part of the settlement business.

3. The revision of the assessment in the Bhote Mehals, as Kote, Shore, Kotah, Chukata, Gungolee, Puldakote, and Dhunneakote, was either entirely, or in a great degree, made by myself. I was proceeding to report my work, pergunnah by pergunnah, but on the receipt of my report for the Bhote Mehals at an early period of the operations, you instructed me to make one General Report for the whole district *at the conclusion of the work.* To effect this, I must have before me the whole details, and, as before stated, these have only just reached me.

4. I had previously arranged my own information under the several necessary heads; and shall have no difficulty in condensing the facts worthy of record into a report even more full than that furnished by me for Gurhwal. Its immediate preparation is barred by more pressing duties in other departments.

5. Under these circumstances, I trust that the Sudder Board of Revenue and His Honor the Lieutenant Governor will find themselves able on your recommendation (which I respectfully solicit) to sanction the several jummas for the 17 pergunnahs of Kumaon Proper, as shewn in the statements, and to fix the amount of revenue for the whole zillah without further delay. The English report will be forwarded the instant that my return to the hills from my Bhabur encampments and my consequent greater leisure, shall enable me to draw it up with proper care and attention.

6. The rates of average assessment per beesee are, as you are aware, not trustworthy, and my remarks on this subject in the Gurhwal report are equally applicable to Kumaon. Nevertheless, I perceive an approximation to truth in the general results shewn even in the column of rates; and the revenue statistics form a very fair test whereby to measure the general condition of the several tracts composing the province. In my report I shall take care to note particularly the

cause of increase and decrease of jumma in the several putteés, and to add to each explanation a geographical and general account of the localities. A map of the district will also be appended.

7. It will be seen by the Board of Revenue that the actual net increase of jumma in Kumaon Proper (viz., Rs. 1,528) is only double the sum recorded as net decrease for Gurhwal, thus leaving for the whole hill part of the province a less net increment than Rs. 800. This fact of itself shews the moderation of the Government demand, when the great comparative prosperity of Kumaon proper is considered. As the *Mahamaree* fever or plague appears to be lamentably on the increase in Gurhwal, it is far from improbable that the Kumaon surplus revenue may all be required to meet the losses in the former district.

8. In conclusion I would beg to recommend the extension of the whole settlement period for the several pergunnahs to the year 1921 Sumbut or 1866-67 A. D. as shewn in No. V. Statement for Palee, the pergunnah last settled. The Kumaonese, without one word of murmur, continued to pay the quinquennial jumma last fixed by Mr. Commissioner Traill, six or seven years after the completion of that period. I have no doubt that now, too, the inhabitants of the pergunnahs first revised, will have no objection to the extension of their leases for four, three, and two years respectively beyond the 20 years.

I have, &c.,

(Signed,) J. H. BATTEN,

*Senior Asst. and Settlement Officer.*

KUMAON SETTLEMENT OFFICE,
*The 6th March*, 1846,
*Camp Kaleedoongee.*

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Puttees | Number of pottahs. | Number of villages. | Jumma of former Settlements. | | | | | | | Jumma of new 20 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1880 St. | Settlement of 1885 St. | Settlement of 1890 St. | Jumma of 1895 St. | Jumma of 1899 St. | Jumma of 1900 St. |
| Bhotea Mehals. | Joohar Mulla, . | 11 | 16 | 3652 | 3815 | 3735 | 712 | 848 | 848 | 861 | 852 | 852 | 852 |
| | Joohar Tulla, .. | 56 | 225 | 1190 | 1325 | 1318 | 1923 | 2531 | 2540 | 2576 | 2525 | 2532 | 2532 |
| | Total 2, | 67 | 241 | 1842 | 5140 | 5053 | 2635 | 3379 | 3388 | 3137 | 3377 | 3384 | 3384 |
| | Darma, .. | 15 | 49 | 3388 | 3835 | 3899 | 808 | 852 | 879 | 901 | 904 | 901 | 901 |
| | Beeanse, .. | 6 | 18 | 874 | 901 | 875 | 252 | 273 | 276 | 291 | 291 | 291 | 291 |
| | Chowdanse, .. | 1 | 29 | 263 | 1031 | 263 | 165 | 210 | 210 | 210 | 210 | 210 | 210 |
| | Total 3, | 22 | 96 | 4525 | 5770 | 1537 | 1225 | 1335 | 1365 | 1405 | 1405 | 1105 | 1105 |
| Danpoor. | Danpoor Mulla, .. | 42 | 116 | 1868 | 2073 | 2172 | 1831 | 1953 | 1977 | 1987 | 0 | 0 | 1995 |
| | Danpoor Tulla, .. | 63 | 157 | 1052 | 1196 | 1281 | 1717 | 2076 | 2091 | 2121 | 0 | 0 | 2109 |
| | Kuteeoor Mulla,.. | 71 | 129 | 337 | 328 | 113 | 491 | 986 | 1001 | 995 | 0 | 0 | 969 |
| | Kuteeoor Tulla, . | 34 | 71 | 230 | 215 | 295 | 390 | 507 | 504 | 551 | 0 | 0 | 561 |
| | Total 4, | 210 | 473 | 3487 | 3812 | 1161 | 4132 | 5522 | 5571 | 5657 | 0 | 0 | 5637 |
| Gungolee. | Bel, .. | 99 | 190 | 409 | 457 | 501 | 622 | 796 | 859 | 894 | 0 | 33 | 894 |
| | Buraoon, .. | 119 | 221 | 430 | 469 | 501 | 728 | 860 | 930 | 977 | 0 | 225 | 1191 |
| | Kumseear, .. | 84 | 166 | 314 | 356 | 399 | 527 | 672 | 717 | 791 | 0 | 0 | 823 |
| | Uttgaon, .. | 34 | 71 | 166 | 183 | 197 | 218 | 219 | 271 | 279 | 0 | 14 | 282 |
| | Poongraon, .. | 15 | 87 | 171 | 570 | 519 | 603 | 701 | 761 | 779 | 0 | 0 | 782 |
| | Total 5, | 351 | 735 | 1620 | 2035 | 2120 | 2698 | 3278 | 3538 | 3720 | 0 | 275 | 3972 |
| Dhuneea-kote. | Dhuneeakote, .. | 22 | 30 | 1260 | 1410 | 1586 | 1719 | 1761 | 1764 | 1777 | 0 | 0 | 1796 |
| | Oochakote, .. | 19 | 39 | 982 | 1095 | 1250 | 1839 | 1461 | 1161 | 1155 | 0 | 0 | 1176 |
| | Seemu'kha, .. | 8 | 13 | 280 | 295 | 310 | 385 | 425 | 420 | 427 | 0 | 0 | 113 |
| | Chinthan, .. | 11 | 20 | 245 | 797 | 885 | 992 | 1093 | 1093 | 1121 | 0 | 0 | 1131 |
| | Total 4 | 63 | 102 | 2767 | 3603 | 4061 | 4465 | 4713 | 4738 | 4783 | 0 | 0 | 4819 |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | | *Unassessed land in beesees.* | | *Malgoozaree land in beesees.* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1901 St. | Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St. Final jummas to 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goont or religiously assigned land. | Maafee or land rent-free to individuals | Cultivated. | Culturable waste exclusive of unmeasd. rock & forest | Huq Pudhanee. | Total malgoozaree area | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area. |
| 852 | 852 | 852 | 852 | 852 | 852 | 1716 | 0 | 0 | 877 | 839 | 0 | 1716 | 0 7 11 | 0 15 6 |
| 2531 | 2534 | 2531 | 2531 | 2531 | 2534 | 4213 | 16 | 0 | 2436 | 1744 | 17 | 4197 | 0 9 8 | 1 0 8 |
| 3386 | 3386 | 3386 | 3386 | 3386 | 3386 | 5929 | 16 | 0 | 3313 | 2583 | 17 | 5913 | 0 9 2 | 1 0 4 |
| 901 | 901 | 901 | 901 | 901 | 901 | 5182 | 0 | 0 | 3769 | 1109 | 4 | 5182 | 0 2 9 | 0 3 10 |
| 291 | 291 | 291 | 291 | 291 | 291 | 1892 | 0 | 0 | 1233 | 659 | 0 | 1892 | 0 2 5 | 0 3 9 |
| 210 | 210 | 210 | 210 | 210 | 210 | 776 | 0 | 0 | 330 | 361 | 85 | 776 | 0 1 3 | 0 10 2 |
| 1405 | 1405 | 1405 | 1405 | 1405 | 1405 | 7850 | 0 | 0 | 5332 | 2129 | 89 | 7850 | 0 2 10 | 0 4 2 |
| 1995 | 1995 | 1995 | 1995 | 1995 | 1995 | 2850 | 0 | 0 | 1753 | 1040 | 57 | 2850 | 0 11 2 | 1 2 3 |
| 2109 | 2109 | 2109 | 2109 | 2109 | 2109 | 3033 | 0 | 0 | 2112 | 893 | 28 | 3033 | 0 11 2 | 0 15 11 |
| 969 | 969 | 973 | 973 | 973 | 973 | 4719 | 130 | 0 | 1931 | 2605 | 50 | 4589 | 0 3 5 | 0 8 1 |
| 564 | 564 | 561 | 561 | 564 | 564 | 1937 | 109 | 4 | 895 | 816 | 10 | 1721 | 0 5 3 | 0 10 1 |
| 5637 | 5637 | 5641 | 5641 | 5641 | 5641 | 12439 | 239 | 4 | 6697 | 5354 | 145 | 12196 | 0 7 5 | 0 13 6 |
| 891 | 891 | 895 | 895 | 895 | 895 | 3197 | 69 | 20 | 1609 | 1475 | 24 | 3108 | 0 1 11 | 0 8 11 |
| 1195 | 1195 | 1195 | 1195 | 1195 | 1195 | 5320 | 91 | 69 | 2371 | 2732 | 54 | 5157 | 0 3 9 | 0 8 1 |
| 823 | 826 | 826 | 826 | 826 | 826 | 4131 | 54 | 13 | 1999 | 2049 | 16 | 4061 | 0 3 3 | 0 6 7 |
| 281 | 287 | 287 | 287 | 287 | 287 | 1329 | 2 | 0 | 521 | 784 | 19 | 1327 | 0 3 6 | 0 8 9 |
| 786 | 786 | 786 | 786 | 786 | 786 | 2325 | 45 | 0 | 1239 | 1023 | 15 | 2277 | 0 5 6 | 0 10 2 |
| 3982 | 3988 | 3989 | 3989 | 3989 | 3989 | 16302 | 267 | 102 | 7712 | 8063 | 128 | 15938 | 0 4 0 | 0 8 3 |
| 1816 | 1816 | 1816 | 1816 | 1816 | 1816 | 2775 | 0 | 232 | 2501 | 38 | 4 | 2543 | 0 11 5 | 0 11 7 |
| 1176 | 1476 | 1476 | 1476 | 1476 | 1476 | 1373 | 0 | 0 | 1272 | 91 | 7 | 1373 | 1 1 2 | 1 2 6 |
| 413 | 413 | 113 | 413 | 113 | 113 | 379 | 0 | 0 | 371 | 6 | 2 | 379 | 1 1 5 | 1 1 9 |
| 1131 | 1131 | 1131 | 1131 | 1131 | 1131 | 1249 | 0 | 0 | 1181 | 66 | 2 | 1249 | 0 14 6 | 0 15 4 |
| 4839 | 1839 | 1839 | 1839 | 4839 | 4839 | 5776 | 0 | 232 | 5325 | 204 | 15 | 5544 | 0 13 11 | 0 14 6 |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Putlees. | Number of pottahs | Number of villages. | Jumma of former Settlement. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1880 St | Settlement of 1885 St. | Settlement of 1890 St. | Jumma of 1898 St | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| Phuldakote. | Chongaon, .. | 18 | 31 | 1312 | 1422 | 1490 | 1518 | 1672 | 1672 | 1695 | 10 | 10 | 1705 | 1705 |
| | Mullee Dotee, .. | 18 | 31 | 930 | 887 | 1029 | 1059 | 1122 | 1122 | 1137 | 0 | 0 | 1137 | 1144 |
| | Koseean. .. | 16 | 21 | 1203 | 1221 | 1353 | 1525 | 1553 | 1523 | 1592 | 0 | 0 | 1592 | 1608 |
| | Dhoora Phat, .. | 25 | 31 | 1118 | 1169 | 1268 | 1242 | 1337 | 1337 | 1371 | 0 | 0 | 1371 | 1365 |
| | Kundar Khooa, . | 30 | 39 | 1761 | 1825 | 2051 | 2131 | 2235 | 2235 | 2215 | 0 | 0 | 2245 | 2220 |
| | Total 5, | 107 | 156 | 6321 | 6521 | 7191 | 7475 | 7919 | 7889 | 8010 | 10 | 10 | 9050 | 8012 |
| Seera. | Barbeesee, .. | 50 | 74 | 611 | 709 | 781 | 918 | 981 | 1023 | 1069 | 0 | 13 | 1071 | 1071 |
| | Malee, .. | 41 | 66 | 270 | 311 | 353 | 437 | 498 | 509 | 531 | 0 | 0 | 532 | 534 |
| | Deendeehat, .. | 32 | 49 | 473 | 545 | 599 | 674 | 753 | 765 | 771 | 0 | 0 | 783 | 783 |
| | Atbeesee, .. | 23 | 39 | 437 | 615 | 623 | 707 | 752 | 806 | 811 | 0 | 83 | 809 | 809 |
| | Total 4, | 116 | 228 | 1791 | 2183 | 2356 | 2736 | 2981 | 3103 | 3188 | 0 | 96 | 3195 | 3197 |
| Shore. | Muhur, .. | 71 | 107 | 1321 | 1450 | 1638 | 1912 | 2122 | 2333 | 2336 | 2 | 91 | 2370 | 2370 |
| | Wuldeea, .. | 74 | 86 | 784 | 991 | 1119 | 1338 | 1494 | 1604 | 1602 | 0 | 34 | 1597 | 1597 |
| | Roul, .. | 29 | 11 | 166 | 220 | 270 | 343 | 389 | 425 | 458 | 0 | 11 | 155 | 457 |
| | Setee, .. | 47 | 63 | 368 | 393 | 488 | 617 | 641 | 683 | 686 | 0 | 30 | 690 | 690 |
| | Soun, .. | 39 | 55 | 490 | 550 | 616 | 736 | 844 | 892 | 851 | 0 | 0 | 863 | 863 |
| | Khuraet, .. | 25 | 52 | 319 | 397 | 458 | 546 | 614 | 683 | 702 | 0 | 0 | 715 | 715 |
| | Total 6, | 285 | 407 | 3181 | 4004 | 4589 | 5492 | 6131 | 6620 | 6635 | 2 | 166 | 6690 | 6692 |
| Talooqua Askote. | Askote, .. | 2 | 109 | 709 | 858 | 915 | 996 | 1095 | 1095 | 1174 | 0 | 0 | 0 | 1174 |
| Kalee Kumaon. | Charal, .. | 105 | 157 | 1053 | 1156 | 1370 | 1661 | 1898 | 2052 | 2101 | 0 | 0 | 0 | 2135 |
| | Regrooban, .. | 80 | 138 | 1039 | 1122 | 1212 | 1350 | 1652 | 1783 | 1798 | 0 | 0 | 0 | 1820 |
| | Goom Des, .. | 81 | 133 | 1425 | 1494 | 1609 | 1871 | 1919 | 2091 | 2103 | 0 | 0 | 0 | 2120 |
| | Pal Beloun, .. | 48 | 61 | 1263 | 1355 | 1479 | 1650 | 1872 | 1985 | 2016 | 0 | 0 | 0 | 2062 |
| | Ussee Chalsee, . | 75 | 107 | 1353 | 1452 | 1711 | 2046 | 2393 | 2571 | 2599 | 0 | 0 | 6 | 2619 |
| | Sooee Beesoong. | 47 | 60 | 581 | 723 | 790 | 853 | 1112 | 1215 | 1289 | 0 | 0 | 7 | 1279 |
| | Seeptee Gungol, | 54 | 81 | 980 | 1039 | 1154 | 1379 | 1645 | 1835 | 1882 | 0 | 0 | 0 | 1916 |
| | Tulla Des part of | 49 | 74 | 1273 | 1365 | 1522 | 1373 | 1579 | 1759 | 1708 | 0 | 0 | 54 | 1712 |
| | Total 8, | 539 | 811 | 8970 | 9706 | 10907 | 12186 | 14101 | 15321 | 15529 | 0 | 0 | 67 | 15663 |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | *Unassessed land in beesees.* | | *Malgoozaree land in beesees.* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St Final jumma to 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goont or religiously assigned land. | Maafee or land rent free to individuals. | Cultivated. | Cultivable waste exclusive of unmeasd. rock & forest. | Huq Pudhanee. | Total malgoozaree area. | Rate of assessment per beesee on total malgoozaree area. | | Rate of assessment per beesee on total cultivated area. | |
| 1705 | 1705 | 1705 | 1705 | 1705 | 2155 | 0 | 0 | 2052 | 89 | 14 | 2155 | 0 12 7 | | 0 13 3 | |
| 1144 | 1111 | 1111 | 1141 | 1144 | 1891 | 0 | 0 | 1864 | 13 | 14 | 1891 | 0 9 10 | | 0 9 8 | |
| 1608 | 1608 | 1608 | 1608 | 1608 | 3858 | 0 | 0 | 3633 | 203 | 22 | 3858 | 0 6 8 | | 0 7 1 | |
| 1365 | 1365 | 1365 | 1365 | 1365 | 2209 | 0 | 0 | 2055 | 112 | 12 | 2209 | 0 9 10 | | 0 10 7 | |
| 2220 | 2220 | 2220 | 2220 | 2220 | 3056 | 0 | 0 | 2936 | 111 | 9 | 3056 | 0 11 7 | | 0 12 1 | |
| 8042 | 8042 | 8042 | 8042 | 8042 | 13169 | 0 | 0 | 12540 | 558 | 71 | 13169 | 0 9 9 | | 0 10 3 | |
| 1071 | 1071 | 1071 | 1071 | 1071 | 4007 | 20 | 0 | 2519 | 1135 | 33 | 3987 | 0 4 4 | | 0 6 10 | |
| 531 | 534 | 531 | 534 | 534 | 3318 | 22 | 0 | 1831 | 1458 | 7 | 3296 | 0 2 7 | | 0 4 8 | |
| 783 | 783 | 783 | 783 | 783 | 3616 | 122 | 0 | 2289 | 1201 | 4 | 3191 | 0 3 7 | | 0 5 6 | |
| 809 | 809 | 809 | 809 | 809 | 2625 | 73 | 0 | 1760 | 790 | 2 | 2552 | 0 5 1 | | 0 7 4 | |
| 3197 | 3197 | 3197 | 3197 | 3197 | 13566 | 237 | 0 | 8399 | 1884 | 46 | 13329 | 0 3 10 | | 0 6 1 | |
| 2372 | 2372 | 2372 | 2372 | 2372 | 7831 | 71 | 0 | 5267 | 2173 | 20 | 7760 | 0 4 11 | | 0 7 2 | |
| 1599 | 1599 | 1599 | 1599 | 1599 | 4784 | 39 | 0 | 3177 | 1562 | 6 | 4745 | 0 5 5 | | 0 8 1 | |
| 457 | 457 | 457 | 457 | 457 | 2581 | 67 | 0 | 1445 | 1067 | 2 | 2514 | 0 2 11 | | 0 5 1 | |
| 690 | 690 | 690 | 690 | 690 | 3052 | 57 | 0 | 1716 | 1273 | 6 | 2995 | 0 3 8 | | 0 6 5 | |
| 863 | 863 | 863 | 863 | 863 | 2911 | 0 | 0 | 1980 | 957 | 4 | 2911 | 0 4 8 | | 0 7 0 | |
| 719 | 719 | 719 | 719 | 719 | 2557 | 30 | 0 | 1745 | 781 | 1 | 2527 | 0 4 7 | | 0 6 7 | |
| 6700 | 6700 | 6700 | 6700 | 6700 | 23716 | 264 | 0 | 15330 | 8113 | 39 | 23182 | 0 4 7 | | 0 7 0 | |
| 1171 | 1174 | 1174 | 1174 | 1174 | 1161 | 0 | 0 | 853 | 611 | 0 | 1164 | 0 12 10 | | 1 6 0 | |
| 2135 | 2135 | 2135 | 2135 | 2135 | 1861 | 61 | 22 | 3871 | 901 | 0 | 1775 | 0 7 3 | | 0 8 10 | |
| 1820 | 2820 | 1820 | 1820 | 1820 | 6900 | 140 | 0 | 4321 | 2145 | 0 | 6766 | 0 4 4 | | 0 6 9 | |
| 2120 | 2120 | 2120 | 2120 | 2120 | 3910 | 0 | 0 | 3051 | 856 | 0 | 3910 | 0 8 8 | | 0 11 1 | |
| 2062 | 2062 | 2062 | 2062 | 2062 | 5305 | 0 | 0 | 4179 | 1126 | 0 | 5305 | 0 6 3 | | 0 7 11 | |
| 2619 | 2619 | 2619 | 2619 | 2619 | 6172 | 38 | 0 | 4900 | 1222 | 12 | 6134 | 0 6 10 | | 0 8 7 | |
| 1279 | 1279 | 1279 | 1279 | 1279 | 2750 | 9 | 0 | 2316 | 428 | 3 | 2717 | 0 7 5 | | 0 8 10 | |
| 1916 | 1916 | 1916 | 1916 | 1916 | 5305 | 0 | 0 | 4299 | 1006 | 0 | 5305 | 0 5 9 | | 0 7 2 | |
| 1712 | 1712 | 1711 | 1711 | 1716 | 6581 | 22 | 0 | 5139 | 1120 | 0 | 6559 | 0 4 2 | | 0 5 4 | |
| 15663 | 15663 | 15665 | 15665 | 15667 | 11796 | 273 | 22 | 32079 | 9107 | 15 | 11501 | 0 6 0 | | 0 7 9 | |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Putteers. | Number of pottahs. | Number of villages. | Jumma of former Settlement. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St | Settlement of 1877 St. | Settlement of 1880 St. | Settlement of 1885 St. | Settlement of 1890 St. | Jumma of 1898 St. | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| Dheranee-row Pahar. | Mullee Row, .. | 48 | 91 | 1967 | 2019 | 2319 | 2703 | 2858 | 2999 | 3055 | 0 | 0 | 0 | 3090 |
| | Tullee Row, .. | 41 | 56 | 1319 | 1156 | 1666 | 1879 | 1962 | 2090 | 2131 | 0 | 0 | 0 | 2173 |
| | Chowbynsee, part of, .. | 11 | 35 | 815 | 815 | 917 | 874 | 948 | 958 | 912 | 0 | 0 | 0 | 949 |
| | Total 3, | 100 | 182 | 1101 | 1320 | 4902 | 5156 | 5768 | 6047 | 6128 | 0 | 0 | 0 | 6212 |
| Ramgurh. | Ramgurh, .. | 5 | 16 | 636 | 637 | 762 | 821 | 783 | 783 | 792 | 0 | 0 | 0 | 792 |
| | Augur, .. | 15 | 20 | 1308 | 1309 | 1555 | 1148 | 1076 | 1103 | 1070 | 0 | 0 | 0 | 1072 |
| | Total 2, | 20 | 36 | 1944 | 1946 | 2317 | 1969 | 1859 | 1886 | 1862 | 0 | 0 | 0 | 1864 |
| Chougurkha. | Salum, .. | 69 | 126 | 1997 | 2091 | 2553 | 2898 | 3190 | 3190 | 3232 | 0 | 0 | 0 | 3338 |
| | Lukhunpoor, .. | 82 | 127 | 1221 | 1252 | 1243 | 1722 | 1976 | 1991 | 2021 | 0 | 0 | 0 | 2078 |
| | Reetagurh, .. | 19 | 32 | 74 | 198 | 259 | 406 | 425 | 125 | 431 | 0 | 0 | 0 | 444 |
| | Rungor, .. | 60 | 101 | 459 | 565 | 623 | 1070 | 1260 | 1260 | 1269 | 0 | 0 | 0 | 1305 |
| | Daroon, .. | 27 | 48 | 269 | 288 | 313 | 409 | 600 | 600 | 607 | 0 | 0 | 0 | 601 |
| | Khurhee, . | 35 | 66 | 98 | 115 | 132 | 212 | 263 | 267 | 308 | 0 | 0 | 0 | 341 |
| | Total 6 | 292 | 502 | 4118 | 4515 | 5123 | 6817 | 7711 | 7736 | 7868 | 0 | 0 | 0 | 8110 |
| Chukata. | Pahar Chukata, | 18 | 43 | 1715 | 1625 | 1711 | 2024 | 2231 | 2527 | 2595 | 0 | 0 | 0 | 2620 |
| Kota. | Pahar Kota, .. | 55 | 76 | 2183 | 2367 | 2436 | 1962 | 1986 | 2315 | 2317 | 0 | 0 | 0 | 2295 |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | *Unassessed land in beesees* | | *Malgoozaree land in beesees.* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St Final jumma to 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goont or religiously assigned land. | Maafee or land rent-free to individuals | Cultivated. | Culturable waste exclusive of unmeasured rock and forest. | Hurj Pudhanee. | Total malgoozaree area. | Rate of assessment per beesee on total malgoozaree area. | Rate of assesment per beesee on total cultivated area. |
| 3090 | 3090 | 3090 | 3090 | 3090 | 4238 | 6 | 0 | 3805 | 423 | 4 | 4232 | 0 10 5 | 0 12 9 |
| 2173 | 2173 | 2173 | 2173 | 2173 | 3353 | 10 | 0 | 2531 | 812 | 0 | 3313 | 0 11 8 | 0 12 11 |
| 949 | 949 | 949 | 949 | 949 | 1859 | 0 | 0 | 1147 | 412 | 0 | 1059 | 0 8 2 | 0 10 6 |
| 6212 | 6212 | 6212 | 6212 | 6212 | 9450 | 16 | 0 | 7783 | 1647 | 4 | 9134 | 0 10 6 | 0 12 9 |
| 792 | 792 | 792 | 792 | 792 | 801 | 0 | 0 | 697 | 101 | 0 | 801 | 0 15 9 | 1 2 2 |
| 1072 | 1072 | 1072 | 1072 | 1072 | 716 | 0 | 0 | 605 | 105 | 6 | 716 | 1 7 11 | 1 12 4 |
| 1864 | 1864 | 1864 | 1864 | 1864 | 1517 | 0 | 0 | 1302 | 209 | 6 | 1517 | 1 3 8 | 1 6 10 |
| 3338 | 3338 | 3338 | 3338 | 3338 | 4426 | 40 | 10 | 3841 | 477 | 55 | 4376 | 0 12 2 | 0 13 11 |
| 2078 | 2078 | 2078 | 2078 | 2078 | 4931 | 49 | 27 | 3929 | 865 | 61 | 4855 | 0 6 10 | 0 8 6 |
| 414 | 414 | 414 | 414 | 414 | 1911 | 105 | 0 | 1023 | 778 | 6 | 1809 | 0 3 11 | 0 5 10 |
| 1305 | 1305 | 1305 | 1305 | 1305 | 4794 | 131 | 0 | 3326 | 1319 | 24 | 4663 | 0 4 6 | 0 6 3 |
| 604 | 604 | 604 | 604 | 604 | 2911 | 25 | 0 | 2349 | 532 | 5 | 2886 | 0 3 1 | 0 4 1 |
| 341 | 341 | 341 | 341 | 341 | 2238 | 71 | 0 | 1116 | 716 | 2 | 2164 | 0 2 6 | 0 3 10 |
| 8110 | 8110 | 8110 | 8110 | 8110 | 21214 | 421 | 37 | 15883 | 1717 | 153 | 20753 | 0 6 3 | 0 8 2 |
| 2620 | 2620 | 2620 | 2620 | 2620 | 2828 | 0 | 0 | 2620 | 160 | 48 | 2828 | 0 14 10 | 1 0 0 |
| 2295 | 2295 | 2295 | 2295 | 2295 | 2591 | 0 | 0 | 2151 | 382 | 55 | 2591 | 0 13 11 | 1 0 9 |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the .*

| Name of Pergunnahs. | Name of Puttees. | Number of pottahs. | Number of villages. | Jumma of former Settlement. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1880 St. | Settlement of 1885 St. | Settlement of 1890 St. | Jumma of 1898 St. | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| Baramundel. | Borarow, .. | 101 | 125 | 1674 | 1991 | 2131 | 3121 | 3674 | 3674 | 3756 | 0 | 0 | 0 | 0 |
| | Mulla Seeoondra, | 30 | 40 | 542 | 608 | 662 | 1001 | 1195 | 1195 | 1212 | 0 | 0 | 0 | 0 |
| | Tulla Seeoondra, | 84 | 118 | 1235 | 1319 | 1436 | 1798 | 2342 | 2350 | 2517 | 0 | 0 | 0 | 0 |
| | Mulla Teekhoun, . | 38 | 47 | 467 | 621 | 634 | 1031 | 1285 | 1285 | 1302 | 0 | 0 | 0 | 0 |
| | TullaTeekhoun, . | 43 | 58 | 1009 | 1090 | 1229 | 1466 | 1610 | 1615 | 1647 | 0 | 0 | 0 | 0 |
| | Utagoolee, . | 63 | 74 | 1178 | 1726 | 1846 | 2613 | 2773 | 2771 | 2806 | 0 | 0 | 0 | 0 |
| | Reeoonee, . | 8 | 16 | 345 | 290 | 321 | 373 | 372 | 372 | 377 | 0 | 0 | 0 | 0 |
| | Dooarsoun, | 7 | 15 | 225 | 203 | 219 | 236 | 215 | 218 | 213 | 0 | 0 | 0 | 0 |
| | Oocheeoor, | 64 | 80 | 698 | 777 | 887 | 1077 | 1281 | 1281 | 1331 | 0 | 0 | 0 | 0 |
| | Beesoudh, . | 36 | 48 | 724 | 732 | 833 | 965 | 1006 | 1025 | 1073 | 0 | 0 | 0 | 0 |
| | Khas Peirja, | 5 | 5 | 75 | 80 | 90 | 164 | 136 | 136 | 114 | 0 | 0 | 0 | 0 |
| | Kyrarow,.. | 27 | 39 | 828 | 782 | 876 | 1256 | 1123 | 1129 | 1446 | 0 | 0 | 0 | 0 |
| | Total 12, | 506 | 665 | 9300 | 10219 | 11194 | 15044 | 17344 | 17381 | 17854 | 0 | 0 | 0 | 0 |
| Pales. | Mulla Dora, | 43 | 82 | 1309 | 1310 | 1842 | 2356 | 2356 | 2356 | 2393 | 0 | 0 | 0 | 0 |
| | Tulla Dora, | 67 | 108 | 1939 | 2023 | 2497 | 2996 | 3054 | 3054 | 3143 | 0 | 0 | 0 | 0 |
| | Genwar, .. | 75 | 120 | 2697 | 2192 | 2964 | 4055 | 4220 | 4211 | 4331 | 0 | 0 | 0 | 0 |
| | Mulla Chowkat, | 46 | 83 | 2974 | 2912 | 3429 | 4070 | 4198 | 4198 | 4230 | 0 | 0 | 0 | 0 |
| | Tulla Chowkat, | 27 | 105 | 3032 | 2910 | 3199 | 4112 | 4196 | 1196 | 1215 | 0 | 0 | 0 | 0 |
| | Kuklasoun, | 49 | 118 | 1505 | 1603 | 1922 | 2157 | 2768 | 2768 | 2819 | 0 | 0 | 0 | 0 |
| | Nyean, .. | 59 | 106 | 2219 | 2358 | 2856 | 3555 | 3519 | 3524 | 3553 | 0 | 0 | 0 | 0 |
| | Scelour, .. | 71 | 120 | 2161 | 2166 | 2917 | 3256 | 3691 | 3691 | 3731 | 0 | 0 | 0 | 0 |
| | Sult, .. | 70 | 215 | 3066 | 3107 | 3637 | 4399 | 4592 | 4605 | 4691 | 0 | 0 | 0 | 0 |
| | Total 9, | 507 | 1057 | 20902 | 20911 | 25593 | 31246 | 32597 | 32639 | 33139 | 0 | 0 | 0 | 0 |
| 17 | Total of Puttees 76 | 3350 | 5985 | 82979 | 89568 | 99199 | 108858 | 119989 | 123161 | 125331 | 4794 | 5336 | 37219 | 75108 |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | *Unassessed land in beesees* | | *Malgoozaree land in beesees.* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St. Final jumma to 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goont or religiously assigned land. | Maafee or land rent-free to individuals | Cultivated. | Culturable waste exclusive of unmeasured rock and forest. | Huq Pudhanee. | Total malgoozaree area | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area. |
| 3813 | 3813 | 3813 | 3813 | 3813 | 5870 | 249 | 51 | 5115 | 442 | 10 | 5567 | 0 10 11 | 0 11 11 |
| 1227 | 1227 | 1227 | 1227 | 1227 | 1264 | 9 | 43 | 1061 | 150 | 1 | 1212 | 1 0 2 | 1 2 6 |
| 2585 | 2585 | 2585 | 2585 | 2585 | 3584 | 48 | 11 | 3301 | 197 | 24 | 3525 | 0 11 9 | 0 12 6 |
| 1308 | 1308 | 1308 | 1308 | 1308 | 2119 | 29 | 0 | 2008 | 76 | 6 | 2090 | 0 10 0 | 0 10 5 |
| 1661 | 1661 | 1661 | 1661 | 1661 | 1045 | 15 | 0 | 992 | 31 | 14 | 1030 | 1 9 10 | 1 11 1 |
| 2829 | 2829 | 2829 | 2829 | 2829 | 1904 | 11 | 3 | 1826 | 56 | 8 | 1890 | 1 7 11 | 1 8 9 |
| 38[illegible] | 388 | 388 | 388 | 388 | 198 | 0 | 0 | 174 | 23 | 1 | 199 | 1 15 5 | 2 3 8 |
| 254 | 251 | 251 | 254 | 254 | 174 | 0 | 0 | 153 | 15 | 6 | 174 | 1 7 4 | 1 10 7 |
| 1360 | 1360 | 1360 | 1360 | 1360 | 1203 | 16 | 6 | 1105 | 65 | 11 | 1181 | 1 2 5 | 1 3 8 |
| 1079 | 1079 | 1079 | 1079 | 1079 | 766 | 2 | 4 | 692 | 62 | 6 | 760 | 1 6 9 | 1 8 11 |
| 15[illegible] | 155 | 155 | 155 | 155 | 174 | 0 | 0 | 161 | 12 | 1 | 174 | 0 14 3 | 0 15 5 |
| 1513 | 1513 | 1513 | 1513 | 1513 | 1211 | 3 | 13 | 1151 | 65 | 9 | 1225 | 1 3 9 | 1 5 0 |
| 18172 | 18172 | 18172 | 18172 | 18172 | 19542 | 382 | 131 | 17732 | 1197 | 97 | 19026 | 0 15 3 | 1 0 11 |
| 2115 | 2115 | 2115 | 2115 | 2115 | 2440 | 22 | 0 | 2237 | 116 | 35 | 2418 | 1 0 2 | 1 1 6 |
| 3213 | 3213 | 3213 | 3213 | 3213 | 3132 | 3 | 0 | 2921 | 109 | 99 | 3129 | 1 0 5 | 1 1 7 |
| 4511 | 1511 | 4514 | 4511 | 4514 | 5162 | 8 | 0 | 4611 | 345 | 198 | 5154 | 0 14 0 | 0 15 8 |
| 4266 | 4266 | 4266 | 4266 | 4266 | 3967 | 31 | 0 | 3646 | 143 | 144 | 3933 | 1 1 4 | 1 2 9 |
| 4315 | 4315 | 4315 | 4315 | 4315 | 3406 | 1 | 0 | 3060 | 176 | 169 | 3405 | 1 4 3 | 1 6 7 |
| 2849 | 2849 | 2849 | 2849 | 2849 | 2645 | 0 | 0 | 2354 | 222 | 69 | 2645 | 1 1 3 | 1 3 4 |
| 3575 | 3575 | 3575 | 3575 | 3575 | 2599 | 11 | 0 | 2272 | 197 | 119 | 2588 | 1 6 1 | 1 8 1 |
| 3758 | 3758 | 3758 | 3758 | 3758 | 3030 | 9 | 0 | 2720 | 253 | 48 | 3021 | 1 3 11 | 1 6 1 |
| 4864 | 4861 | 4861 | 4864 | 4864 | 4323 | 23 | 0 | 3907 | 271 | 119 | 4300 | 1 [illegible] 1 | 1 3 11 |
| 33799 | 33799 | 33799 | 33799 | 33799 | 30701 | 111 | 0 | 27828 | 1805 | 900 | 30593 | 1 1 8 | 1 [illegible] 5 |
| 127103 | 127108 | 127110 | 127110 | 127112 | 229883 | 2229 | 531 | 172912 | 52383 | 1828 | 227123 | 0 8 11 | 0 11 9 |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Puttees. | Number of pottahs. | Number of villages. | Jumma of former Settlements. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1880 St. | Settlement of 1885 St. | Settlement of 1890 St. | Jumma of 1898 St. | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| | | | | | | | | | | | | | | |
| | Number of Tea Nurseries | | | | | | | | | | | | | |
| | Baramundel | 2 | 3 | 0 | 3 | 11 | 6 | 5 | 7 | 23 | | | | Tea Nur- |
| | Waste | | | | | | | | | | | | | |
| | Johar, .. | 2 | 7 | 0 | 0 | 0 | 1 | 0 | 4 | 16 | | | | do. |
| | Danpore, .. | 5 | 13 | 22 | 23 | 30 | 32 | 55 | 50 | 54 | | | | do. |
| | Gungolee, . | 17 | 55 | 12 | 13 | 11 | 11 | 18 | 42 | 86 | | | | do. |
| | Phuldakote, | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | | do. |
| | Sor, .. | 5 | 9 | 11 | 11 | 13 | 22 | 20 | 18 | 31 | | | | do. |
| | Seera, .. | 2 | 3 | 14 | 15 | 16 | 17 | 17 | 17 | 19 | | | | do. |
| | KaleeKumaon, .. | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | | do. |
| | Chowgurkha, .. | 4 | 6 | 4 | 7 | 14 | 16 | 5 | 6 | 16 | | | | do. |
| | Total waste, | 37 | 95 | 63 | 69 | 87 | 99 | 115 | 137 | 230 | | | | do. |
| | Total of waste villages with Tea Nurseries, | 39 | 98 | 63 | 72 | 95 | 105 | 120 | 111 | 253 | | | | |
| | Grand total 76, . | 3389 | 6083 | 53042 | 89640 | 99297 | 108963 | 120109 | 123308 | 125581 | 1791 | 5386 | 37219 | 75108 |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St. Final jumma to 1921 St. | Total area in beesees exclusive of unmeasured waste. | *Unassessed land in beesees.* Goont or religiously assigned land. | Maafee or rent-free land to individuals | *Malgoozaree land in beesees.* Cultivated. | Culturable waste exclusive of unmeasured rock and forest | Huq Pudhanee. | Total malgoozaree area | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area. |
| APPROPRIATED BY GOVERNMENT. | | | | | | | | | | | | | |
| series | | | | | 26 | 0 | 0 | 26 | 0 | 0 | 26 | | |
| VILLAGES. | | | | | | | | | | | | | |
| do | | | | | 158 | 0 | 0 | 0 | 158 | 0 | 158 | | |
| do. | | | | | 212 | 1 | 0 | 0 | 211 | 0 | 211 | | |
| do. | | | | | 793 | 0 | 0 | 0 | 793 | 0 | 793 | | |
| do. | | | | | inundated | | | | | | | | |
| do. | | | | | 260 | 0 | 0 | 0 | 260 | 0 | 260 | | |
| do. | | | | | 156 | 0 | 0 | 0 | 156 | 0 | 156 | | |
| do. | | | | | 18 | 0 | 0 | 0 | 18 | 0 | 18 | | |
| do. | | | | | 206 | 0 | 0 | 0 | 206 | 0 | 206 | | |
| do. | | | | | 1803 | 1 | 0 | 0 | 1802 | 0 | 1802 | | |
| | | | | | 1829 | 1 | 0 | 26 | 1802 | 0 | 1828 | | |
| 127103 | 127108 | 127110 | 127110 | 127112 | 231712 | 2230 | 531 | 172938 | 54185 | 1828 | 228951 | | |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Puttees. | Number of pottahs. | Number of villages. | Jumma of former Settlements. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1880 St. | Settlement of 1885 St. | Settlement of 1890 St. | Jumma of 1898 St. | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| | GOONT OR RELIGIOUSLY | | | | | | | | | | | | | |
| JOHAR. | Tulla Johar, .. | 0 | 1 | | | | | | | | | | | |
| DANPOOR. | Tulla Danpoor, .. | 0 | 5 | | | | | | | | | | | |
| | Tulla Kuteeor, .. | 0 | 8 | | | | | | | | | | | |
| | Mulla Kuteeor, .. | 0 | 35 | | | | | | | | | | | |
| | Total 3, | 0 | 48 | | | | | | | | | | | |
| GUNGOLEE. | Bel, .. .. | 0 | 9 | | | | | | | | | | | |
| | Baraoon, .. .. | 0 | 12 | | | | | | | | | | | |
| | Kumseear .. .. | 0 | 19 | | | | | | | | | | | |
| | Uttgaon, .. .. | 0 | 1 | | | | | | | | | | | |
| | Poongraon, .. | 0 | 1 | | | | | | | | | | | |
| | Total 5, | 0 | 45 | | | | | | | | | | | |
| PHULDA KOTE. | Chougoan, | 0 | 1 | | | | | | | | | | | |
| SEERA. | Mallee, .. | 0 | 5 | | | | | | | | | | | |
| | Decndee hât, .. | 0 | 1 | | | | | | | | | | | |
| | Atbeesee, .. | 0 | 3 | | | | | | | | | | | |
| | Total 3, | 0 | 9 | | | | | | | | | | | |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | *Unassessed land in beesees.* | | *Malgoozaree land in beesees.* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St. Final jumma to 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goont or religiously assigned land. | Maafee or land rent-free to individuals. | Cultivated. | Culturable waste exclusive of unmeasured rock and forest. | Huq Pudhanee. | Total malgoozaree area. | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area.* |
| ASSIGNED RENT-FREE LANDS | | | | | | | | | | | | | |
| | | | | | 6 | 6 | | | | | | | |
| | | | | | 30 | 30 | | | | | | | |
| | | | | | 61 | 61 | | | | | | | |
| | | | | | 1183 | 1183 | | | | | | | |
| | | | | | 1274 | 1274 | | | | | | | |
| | | | | | 181 | 181 | | | | | | | |
| | | | | | 144 | 144 | | | | | | | |
| | | | | | 242 | 242 | | | | | | | |
| | | | | | 75 | 75 | | | | | | | |
| | | | | | 4 | 4 | | | | | | | |
| | | | | | 646 | 646 | | | | | | | |
| | | | | | 132 | 132 | | | | | | | |
| | | | | | 257 | 257 | | | | | | | |
| | | | | | 75 | 75 | | | | | | | |
| | | | | | 55 | 55 | | | | | | | |
| | | | | | 387 | 387 | | | | | | | |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Puttees. | Number of pottahs. | Number of villages. | Jumma of former Settlements. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1880 St. | Settlement of 1885 St. | Settlement of 1890 St. | Jumma of 1898 St. | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| Shor. | Muhur, .. | 0 | 3 | | | | | | | | | | | |
| | Setee, .. | 0 | 3 | | | | | | | | | | | |
| | Total 2 | 0 | 6 | | | | | | | | | | | |
| Kallee Kamaon. | Charal, .. | 0 | 8 | | | | | | | | | | | |
| | Regrooban, .. | 0 | 2 | | | | | | | | | | | |
| | Goom Des, .. | 0 | 1 | | | | | | | | | | | |
| | Palbeloun, .. | 0 | 2 | | | | | | | | | | | |
| | Ussee Chalsee, .. | 0 | 8 | | | | | | | | | | | |
| | Sooee Beesoong, .. | 0 | 1 | | | | | | | | | | | |
| | Seeptee Gungol. .. | 0 | 9 | | | | | | | | | | | |
| | Tulla Des, .. | 0 | 8 | | | | | | | | | | | |
| | Total 8 | 0 | 39 | | | | | | | | | | | |
| Dheka-neeow. | Mullee Row, .. | 0 | 1 | | | | | | | | | | | |
| Chaka-ta. | Pahar Chakata, .. | 0 | 1 | | | | | | | | | | | |
| Kota. | Pahar Kota, .. | 0 | 1 | | | | | | | | | | | |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | Total area in beesees exclusive of unmeasured waste. | *Unassessed land in beesees.* | | *Malgoozaree land in beesees.* | | | | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1203 St. | Jumma of 1904. | Jumma of 1905 St. | Jumma of 1906 St. Final jumma to 1921 St. | | Goont or religiously assigned land. | Maafee or land rent-free to individuals. | Cultivated. | Culturable waste exclusive of unmeasured rock and forest. | Huq Pudhanee. | Total malgoozaree area. | | |
| | | | | | 104 | 104 | | | | | | | |
| | | | | | 111 | 111 | | | | | | | |
| | | | | | 215 | 215 | | | | | | | |
| | | | | | 46 | 46 | | | | | | | |
| | | | | | 30 | 30 | | | | | | | |
| | | | | | 47 | 47 | | | | | | | |
| | | | | | 125 | 125 | | | | | | | |
| | | | | | 549 | 549 | | | | | | | |
| | | | | | 27 | 27 | | | | | | | |
| | | | | | 925 | 925 | | | | | | | |
| | | | | | 532 | 532 | | | | | | | |
| | | | | | 2281 | 2281 | | | | | | | |
| | | | | | 8 | 8 | | | | | | | |
| | | | | | 7 | 7 | | | | | | | |
| | | | | | 44 | 44 | | | | | | | |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Puttees. | Number of pottahs. | Number of villages. | Jumma of former Settlements. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1880 St. | Settlement of 1865 St. | Settlement of 1890 St. | Jumma of 1898 St. | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| Chowgurkha. | Salem, .. .. | 0 | 3 | | | | | | | | | | | |
| | Lukhunpore, .. | 0 | 4 | | | | | | | | | | | |
| | Daroon, .. .. | 0 | 21 | | | | | | | | | | | |
| | Rungor, .. .. | 0 | 7 | | | | | | | | | | | |
| | Reetagar, .. .. | 0 | 11 | | | | | | | | | | | |
| | Khurhei, .. .. | 0 | 4 | | | | | | | | | | | |
| | Total 6, | 0 | 50 | | | | | | | | | | | |
| Baramundul. | Bararow, .. .. | 0 | 10 | | | | | | | | | | | |
| | Mulla Seeondra, .. | 0 | 1 | | | | | | | | | | | |
| | Tulla Seeondra, .. | 0 | 5 | | | | | | | | | | | |
| | Mulla Teekhoon, .. | 0 | 3 | | | | | | | | | | | |
| | Tulla Teekhoon, .. | 0 | 2 | | | | | | | | | | | |
| | Uttagoolee, .. | 0 | 2 | | | | | | | | | | | |
| | Beesondh, .. .. | 0 | 3 | | | | | | | | | | | |
| | Kyrarow, .. .. | 0 | 3 | | | | | | | | | | | |
| | Total 8, | 0 | 29 | | | | | | | | | | | |
| Palee. | Mulla Dora, .. | 0 | 4 | | | | | | | | | | | |
| | Tulla Dora, .. | 0 | 2 | | | | | | | | | | | |
| | Genwar, .. | 0 | 6 | | | | | | | | | | | |
| | Mulla Choukot, .. | 0 | 5 | | | | | | | | | | | |
| | Nyean, .. .. | 0 | 1 | | | | | | | | | | | |
| | Sult, .. .. | 0 | 4 | | | | | | | | | | | |
| | Total 6, | 0 | 22 | | | | | | | | | | | |
| Kotowlee. | Kotowlee, .. | 0 | 60 | | In | Suda | Burt | to B | uddr | inath | | | | |

IV.

*result of the Settlement under the provisions of Regulation IX. of 1833.*

| *Settlement extending to years.* | | | | | *Unassessed land in beesees.* | | *Malgoozaree land in beesees.* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St. Final jumma to 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goont or religiously assigned land. | Maafee or land rent-free to individuals. | Cultivated. | Culturable waste exclusive of unmeasured rock and forest. | Huq Pudhance. | Total malgoozaree area. | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area. |
| | | | | | 50 | 50 | | | | | | | |
| | | | | | 107 | 107 | | | | | | | |
| | | | | | 469 | 469 | | | | | | | |
| | | | | | 351 | 351 | | | | | | | |
| | | | | | 119 | 119 | | | | | | | |
| | | | | | 41 | 11 | | | | | | | |
| | | | | | 1170 | 1170 | | | | | | | |
| | | | | | 207 | 207 | | | | | | | |
| | | | | | 4 | 4 | | | | | | | |
| | | | | | 161 | 161 | | | | | | | |
| | | | | | 21 | 21 | | | | | | | |
| | | | | | 23 | 23 | | | | | | | |
| | | | | | 36 | 36 | | | | | | | |
| | | | | | 21 | 21 | | | | | | | |
| | | | | | 91 | 91 | | | | | | | |
| | | | | | 567 | 567 | | | | | | | |
| | | | | | 130 | 130 | | | | | | | |
| | | | | | 52 | 52 | | | | | | | |
| | | | | | 123 | 123 | | | | | | | |
| | | | | | 232 | 232 | | | | | | | |
| | | | | | 41 | 41 | | | | | | | |
| | | | | | 116 | 116 | | | | | | | |
| | | | | | 724 | 724 | | | | | | | |
| | | | | | 1511 | 1511 | | | | | | | |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Puttees. | Number of pottahs. | Number of villages. | Jumma of former Settlements. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1850 St. | Settlement of 1855 St. | Settlement of 1890 St. | Jumma of 1898 St. | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| Mahree-ooree. | Mahreeooree, .. | 0 | 31 | | In S | uda | Burt | to K | edar | n ath | | | | |
| | Total Goont villages, .. | 0 | 344 | | | | | | | | | | | |

Maafee Villages held rent-

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Joohar. | Mulla Joohar, .. | 0 | 1 | | | | | | | | | | | |
| Dar-ma. | Chindans, .. | 0 | 2 | | | | | | | | | | | |
| Dan-poor. | Mulla Kuteeoor, .. | 0 | 3 | | | | | | | | | | | |
| Gungoo-lee. | Bel, .. .. | 0 | 6 | | | | | | | | | | | |
| | Baraon, .. .. | 0 | 8 | | | | | | | | | | | |
| | Kumceear, .. .. | 0 | 6 | | | | | | | | | | | |
| | Total 3, | 0 | 20 | | | | | | | | | | | |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | *Unassessed land in beesees.* | | *Malgoozaree land in beesees.* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St Final jumma of 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goout or religiously assigned land. | Maafee or land rent-free to individuals. | Cultivated. | Culturable waste exclusive of unmeasured rock and forest. | Huq Pudhanee. | Total malgoozaree area. | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area. |
| | | | | | 2220 | 2220 | | | | | | | |
| | | | | | 11225 | 11225 | | | | | | | |

FREE BY INDIVIDUALS.

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 170 | 0 | 170 | | | | | | |
| | | | | | 34 | 0 | 31 | | | | | | |
| | | | | | 482 | 0 | 482 | | | | | | |
| | | | | | 60 | 0 | 60 | | | | | | |
| | | | | | 55 | 0 | 55 | | | | | | |
| | | | | | 62 | 0 | 62 | | | | | | |
| | | | | | 177 | 0 | 177 | | | | | | |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Puttees. | Number of pottahs. | Number of villages. | Jumma of former Settlement. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St. | Settlement of 1874 St. | Settlement of 1877 St. | Settlement of 1880 St. | Settlement of 1885 St. | Settlement of 1890 St. | Jumma of 1895 St. | Jumma of 1899 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| Dhuneeakote. | Dhuneeakote, .. | 0 | 9 | | | | | | | | | | | |
| Kalee Kumaon. | Charal, .. | 0 | 8 | | | | | | | | | | | |
| | Regnooban, .. | 0 | 1 | | | | | | | | | | | |
| | Ussee Chulsee, .. | 0 | 1 | | | | | | | | | | | |
| | Total 3, | 0 | 10 | | | | | | | | | | | |
| Dheeanerow. | Mulkee Row, .. | 0 | 1 | | | | | | | | | | | |
| | Lukhunpore, .. | 0 | 7 | | | | | | | | | | | |
| | Total 2, | 0 | 8 | | | | | | | | | | | |
| Chou Gurkha. | Petagar, .. | 0 | 2 | | | | | | | | | | | |
| | Khuthei, .. | 0 | 6 | | | | | | | | | | | |
| | Total 2, | 0 | 8 | | | | | | | | | | | |
| Baramundel. | Bora Row, .. | 0 | 5 | | | | | | | | | | | |
| | Mulla Seroondra, .. | 0 | 6 | | | | | | | | | | | |
| | Tulla Seeondra, .. | 0 | 6 | | | | | | | | | | | |
| | Mulla Teekhoon, .. | 0 | 5 | | | | | | | | | | | |
| | Tulla Teekhoon, .. | 0 | 2 | | | | | | | | | | | |
| | Uttagoolee, .. | 0 | 1 | | | | | | | | | | | |
| | Kyra Row, .. | 0 | 2 | | | | | | | | | | | |
| | Total 7, | 0 | 30 | | | | | | | | | | | |

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | *Unassessed land in beesees.* | | *Malgoozaree land in beesees.* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1903 St. | Jumma of 1904 St. | Jumma of 1905 St. | Jumma of 1906 St. Final jumma of 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goont or religiously assigned land. | Maafee or land rent-free to individuals. | Culturable waste exclusive of unmeasured rock and forest. | Cultivated. | Huq Pudhanee. | Total malgoozaree area. | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area. |
| | | | | | 341 | 0 | 341 | | | | | | |
| | | | | | 159 | 0 | 159 | | | | | | |
| | | | | | 42 | 0 | 42 | | | | | | |
| | | | | | 48 | 0 | 48 | | | | | | |
| | | | | | 249 | 0 | 249 | | | | | | |
| | | | | | 13 | 0 | 13 | | | | | | |
| | | | | | 96 | 0 | 96 | | | | | | |
| | | | | | 109 | 0 | 109 | | | | | | |
| | | | | | 23 | 0 | 23 | | | | | | |
| | | | | | 161 | 0 | 161 | | | | | | |
| | | | | | 184 | 0 | 184 | | | | | | |
| | | | | | 185 | 0 | 185 | | | | | | |
| | | | | | 89 | 0 | 89 | | | | | | |
| | | | | | 150 | 0 | 150 | | | | | | |
| | | | | | 57 | 0 | 57 | | | | | | |
| | | | | | 55 | 0 | 55 | | | | | | |
| | | | | | 35 | 0 | 35 | | | | | | |
| | | | | | 27 | 0 | 27 | | | | | | |
| | | | | | 595 | 0 | 595 | | | | | | |

No.

*General Settlement Statement of Zillah Kumaon exhibiting the*

| Name of Pergunnahs. | Name of Puttees | Number of pottahs. | Number of villages. | Jumma of former Settlement. | | | | | | | Jumma of new 20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Settlement of 1872 St. | Settlement of 1873 St | Settlement of 1741 St. | Settlement of 1577 St. | Settlement of 1580 St. | Settlement of 1585 St. | Settlement of 1690 St. | Jumma of 1891 St. | Jumma of 1859 St. | Jumma of 1900 St. | Jumma of 1901 St. |
| Palee | Mulla Dora, .. | 0 | 1 | | | | | | | | | | | |
| | Seelour, .. | 0 | 1 | | | | | | | | | | | |
| | Total 2, | 0 | 2 | | | | | | | | | | | |
| | Total Maafee, .. | 0 | 93 | | | | | | | | | | | |
| | Total of Goont and Maafee, .. | 0 | 437 | | | | | | | | | | | |
| Total Pergunnahs 19. | Grand total of Puttees 78, .. | 3359 | 6520 | | | | | | | | | | | |

Kumaon Settlement Office,

*The 1st March*, 1916.

IV.

*result of the Settlement under the provisions of Regulation IX. of* 1833.

| *Settlement extending to years.* | | | | | | *Unassessed land in beesees.* | | *Malgoozaree land in beesees.* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jumma of 1902 St. | Jumma of 1203 St. | Jumma of 1904. | Jumma of 1905 St. | Jumma of 1906 St. Final jumma to 1921 St. | Total area in beesees exclusive of unmeasured waste. | Goont or religiously assigned land. | Maafee or land rent free to individuals. | Cultivated. | Culturable waste exclusive of unmeasured rock and forest. | Huq Pudhanee. | Total malgoozaree area. | Rate of assessment per beesee on total malgoozaree area. | Rate of assessment per beesee on total cultivated area. |
| | | | | | 23 | 0 | 23 | | | | | | |
| | | | | | 12 | 0 | 12 | | | | | | |
| | | | | | 35 | 0 | 35 | | | | | | |
| | | | | | 2382 | 0 | 2382 | | | | | | |
| | | | | | 13607 | 11225 | 2382 | | | | | | |
| | | | | | 245319 | 13455 | 2913 | 172938 | 34185 | 1828 | 228951 | | |

J. H. BATTEN,

*Settlement Officer.*

No.

*Annual Jumma State*

| Pergunnahs. | Number of puttees. | Number of pottas. | Number of villages. | Jumma of the last year of the expired settlement. | *Proposed* 1595 Sumbut, 1541-42 A. D. | 1899 Sumbut, 1842-43 A. D. | 1900 Sumbut, 1843-44 A. D. | 1901 Sumbut, 1844-45 A. D. | 1902 Sumbut, 1845-46 A. D. | 1903 Sumbut, 1846-47 A. D. | 1904 Sumbut, 1847-48 A. D. | 1905 Sumbut, 1848-49 A. D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Joghar, .. .. .. | 2 | 67 | 211 | 3453 | 3377 | 3381 | 3381 | 3386 | 3386 | 3386 | 3386 | 3386 |
| Dhima, .. .. | 3 | 22 | 96 | 1105 | 1105 | 1405 | 1101 | 1105 | 1105 | 1105 | 1105 | 1105 |
| Total 2, | 5 | 89 | 337 | 4558 | 1782 | 1789 | 1789 | 1791 | 1791 | 1791 | 1791 | 1791 |

| Pergunnahs. | Number of puttees. | Number of pottahs. | Number of villages. | Jumma of the last year of the expired settlement. | 1900 Sumbut, 1513-14 A. D. | 1901 Sumbut. | 1902 Sumbut. | 1903 Sumbut. | 1904 Sumbut. | 1905 Sumbut. | 1906 Sumbut. | 1907 Sumbut. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Danpoor, .. .. | 4 | 210 | 473 | 5711 | 5637 | 5637 | 5637 | 5611 | 5611 | 5611 | 5614 | 5611 |
| Gungolee, .. .. .. | 5 | 381 | 755 | 3806 | 3972 | 3952 | 3985 | 3989 | 3989 | 3959 | 3959 | 3959 |
| Dhuneeakote, .. .. | 4 | 63 | 102 | 4783 | 1519 | 1539 | 4839 | 4839 | 1539 | 4839 | 4839 | 4839 |
| Phuldakote, .. .. | 5 | 107 | 156 | 8011 | 8050 | 8012 | 8012 | 8012 | 8012 | 8012 | 8012 | 8012 |
| Seera, .. .. .. | 1 | 116 | 228 | 3207 | 3195 | 3197 | 3197 | 3197 | 3197 | 3197 | 3197 | 3197 |
| Shór, .. .. .. | 6 | 285 | 407 | 6666 | 6690 | 6692 | 6700 | 6700 | 6700 | 6700 | 6700 | 6700 |
| Total 6, | 28 | 1192 | 2121 | 32217 | 32363 | 32389 | 32103 | 32108 | 32108 | 32108 | 32108 | 32108 |

V.

*ment of Zillah Kumaòn.*

*Jumma.*

| 1906 Sumbut, 1849-50 A. D. | 1907 Sumbut, 1850-51 A. D. | 1908 Sumbut, 1851-52 A. D. | 1909 Sumbut, 1852-53 A. D. | 1910 Sumbut, 1853-54 A. D. | 1911 Sumbut, 1854-55 A. D. | 1912 Sumbut, 1855-56 A. D. | 1913 Sumbut, 1856-57 A. D. | 1914 Sumbut, 1857-58 A. D. | 1915 Sumbut, 1858-59 A. D. | 1916 Sumbut, 1859-60 A. D. | 1917 Sumbut, 1860-61 A. D. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3386 | 3386 | 3386 | 3386 | 3386 | 3386 | 3386 | 3386 | 3386 | 3386 | 3386 | 3386 |
| 1405 | 1405 | 1405 | 1405 | 1405 | 1405 | 1405 | 1405 | 1405 | 1405 | 1405 | 1405 |
| 4791 | 4791 | 4791 | 4791 | 4791 | 4791 | 4791 | 4791 | 4791 | 4791 | 4791 | 4791 |

| 1908 Sumbut. | 1909 Sumbut. | 1910 Sumbut. | 1911 Sumbut. | 1912 Sumbut. | 1913 Sumbut. | 1914 Sumbut. | 1915 Sumbut. | 1916 Sumbut. | 1917 Sumbut. | 1918 Sumbut, 1861-62 A. D. | 1919 Sumbut, 1862-63 A. D. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5641 | 5641 | 5641 | 5641 | 5611 | 5611 | 5641 | 5641 | 5611 | 5611 | 5641 | 5641 |
| 3989 | 3989 | 3989 | 3989 | 3989 | 3989 | 3989 | 3989 | 3989 | 3989 | 3989 | 3989 |
| 4839 | 4839 | 4839 | 4839 | 4839 | 4839 | 4839 | 4639 | 4839 | 4939 | 4839 | 4839 |
| 8042 | 8042 | 8042 | 8012 | 8012 | 8012 | 8042 | 8042 | 8042 | 8012 | 8042 | 8042 |
| 3197 | 3197 | 319: | 3197 | 3197 | 3197 | 3197 | 3197 | 3197 | 3197 | 3197 | 3197 |
| 6700 | 6700 | 670( | 6700 | 6700 | 6700 | 6700 | 6700 | 6700 | 6700 | 6700 | 6700 |
| 32408 | 32408 | 32408 | 32408 | 32108 | 32408 | 32408 | 32408 | 32408 | 32108 | 32408 | 32408 |

No.

*Annual Jumma State*

| Pergunnah. | Number of puttees. | Number of pottas. | Number of villages. | Jumma of the last year of the expired settlement. | 1901 Sumbut, 1844-45 A. D | 1902 Sumbut. | 1903 Sumbut. | 1904 Sumbut, | 1905 Sumbut. | 1906 Sumbut. | 1907 Sumbut. | 1908 Sumbut. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Talooqua Uskote, | 1 | 2 | 109 | 1174 | 1174 | 1174 | 1174 | 1174 | 1174 | 1174 | 1174 | 1174 |
| KaleeKumaon,.. | 8 | 539 | 814 | 15533 | 15663 | 15663 | 15663 | 15665 | 15665 | 15667 | 15667 | 15667 |
| Dheeaneerow, | 3 | 100 | 182 | 6128 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 |
| Ramgurh, | 2 | 20 | 36 | 1862 | 1864 | 1864 | 1864 | 1864 | 1864 | 1864 | 1864 | 1864 |
| Chougur-kha, | 6 | 292 | 502 | 7884 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 |
| Cha-kata Mulla, | 1 | 48 | 83 | 2595 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 |
| Kota Mulla, .. | 1 | 55 | 76 | 2317 | 2285 | 2295 | 2295 | 2295 | 2295 | 2295 | 2295 | 2295 |
| Total 7, | 22 | 1056 | 1802 | 37493 | 37928 | 37938 | 37938 | 37940 | 37940 | 37942 | 37942 | 37942 |

| Pergunnah. | Number of puttees. | Number of pottas. | Number of villages. | Jumma of the last year of the expired settlement. | 1902 Sumbut, 1845-46 A. D. | 1903 Sumbut. | 1904 Sumbut. | 1905 Sumbut. | 1906 Sumbut. | 1907 Sumbut. | 1908 Sumbut. | 1909 Sumbut. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bara Mundil, . | 12 | 506 | 665 | 17977 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 |
| Pâlee, .. | 9 | 507 | 1057 | 33139 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 |
| Total 2, | 21 | 1013 | 1722 | 51016 | 51971 | 51977 | 51971 | 51971 | 51971 | 51971 | 51971 | 51971 |

KUMAON SETTLEMENT OFFICE,
*The 1st March*, 1846.

V.

*ment of Zillah Kumaon.*

| 1909 Sumbut. | 1910 Sumbut. | 1911 Sumbut. | 1912 Sumbut. | 1913 Sumbut. | 1914 Sumbut. | 1915 Sumbut. | 1916 Sumbut. | 1917 Sumbut. | 1918 Sumbut. | 1919 Sumbut. | 1920 Sumbut, 1863-64 A. D. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1174 | 1174 | 1174 | 1171 | 1174 | 1174 | 1174 | 1174 | 1174 | 1174 | 1174 | 1174 |
| 15667 | 15667 | 15667 | 15667 | 15667 | 15667 | 15667 | 15667 | 15667 | 15667 | 15667 | 15667 |
| 6212 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 | 6212 |
| 1864 | 1864 | 1864 | 1864 | 1861 | 1864 | 1864 | 1864 | 1864 | 1864 | 1864 | 1864 |
| 8110 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 | 8110 |
| 2620 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 | 2620 |
| 2295 | 2295 | 2295 | 2295 | 2295 | 2295 | 2295 | 2295 | 2295 | 2295 | 2295 | 2295 |
| 37942 | 37912 | 37912 | 37912 | 37912 | 37912 | 37912 | 37912 | 37912 | 37912 | 37912 | 37912 |

| 1910 Sumbut. | 1911 Sumbut. | 1912 Sumbut. | 1915 Sumbut. | 1914 Sumbut. | 1915 Sumbut. | 1916 Sumbut. | 1917 Sumbut. | 1918 Sumbut. | 1919 Sumbut. | 1920 Sumbut. | 1921 Sumbut, 1861-65 A. D. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 18172 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 | 18172 |
| 33799 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 | 33799 |
| 51971 | 51971 | 51971 | 51971 | 51971 | 51971 | 51971 | 51971 | 51971 | 51971 | 51971 | 51971 |

J. H. BATTEN,
*Settlement Officer.*

No.

*Jummabundee of Zillah Kumaon, shewing the distribu*

| No. | Name of Pergunnahs. | *Name of Puttees.* | Total number of villages settled. | Number of pottahs. | Former jumma. |
|---|---|---|---|---|---|
| 1 | Joohar, .. .. .. .. | Mulla Joohar, .. .. | 16 | 11 | 867 |
| | | Tulla Joohar, .. .. | 225 | 56 | 2586 |
| | | Total 2, .. | 241 | 67 | 3453 |
| 2 | Darma, .. .. .. .. | Darma, .. .. .. | 49 | 15 | 904 |
| | | Beeanse, .. .. .. | 18 | 6 | 291 |
| | | Choudanse, .. .. | 29 | 1 | 210 |
| | | Total 3, .. | 96 | 22 | 1405 |
| 3 | Danpoor, .. .. .. .. | Danpoor Mulla, .. .. | 116 | 42 | 1987 |
| | | Danpoor Tulla, .. .. | 157 | 63 | 2134 |
| | | Kuteeoor Mulla,.. .. | 129 | 71 | 1020 |
| | | Kuteeoor Tulla, .. .. | 71 | 34 | 570 |
| | | Total 4, .. | 473 | 210 | 5711 |
| 4 | Gungoolee, .. .. .. .. | Bel, .. .. .. .. | 190 | 99 | 908 |
| | | Buraon, .. .. .. | 224 | 119 | 1011 |
| | | Kumceear, .. .. .. | 186 | 84 | 803 |
| | | Uttgaon, .. .. .. | 71 | 34 | 297 |
| | | Poongraon, .. .. | 87 | 45 | 787 |
| | | Total, 5, .. | 758 | 381 | 3806 |
| 5 | Dhunneeakote, .. .. .. | Dhunneeakote, .. .. | 30 | 22 | 1777 |
| | | Oochakote, .. .. .. | 39 | 19 | 1455 |
| | | Seemulkha, .. .. .. | 13 | 8 | 427 |
| | | Chouthan, .. .. .. | 20 | 14 | 1124 |
| | | Total, 4, .. | 102 | 63 | 4783 |
| 6 | Phuldakote, .. .. .. | Chougaon, .. ... .. | 31 | 18 | 1695 |
| | | Mullee Dotee, .. .. | 31 | 18 | 1137 |
| | | Koseean, .. .. .. | 24 | 16 | 1596 |
| | | Dhoora Phat, .. .. | 31 | 25 | 1371 |
| | | Kundar Khoon, .. .. | 39 | 31 | 2245 |
| | | Total 5, .. | 156 | 107 | 8044 |

VI.

*tion of Increase and Decrease at the Revised Settlement.*

| Highest jumma of new settlement. | Decrease. | | | Increase. | | | Remarks. |
|---|---|---|---|---|---|---|---|
| | On account of waste villages. | On account of decreased jumma. | Total decrease. | On account of niabad lands. | On account of increased jumma. | Total increase. | |
| 852 | 6 | 9 | 15 | 0 | 0 | 0 | |
| 2534 | 10 | 117 | 127 | 9 | 66 | 75 | |
| 3386 | 16 | 126 | 142 | 9 | 66 | 75 | Actual decrease 67 rupees. |
| 904 | 0 | 12 | 12 | 0 | 12 | 12 | |
| 291 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 210 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1405 | 0 | 12 | 12 | 0 | 12 | 12 | No change. |
| 1995 | 0 | 18 | 18 | 13 | 13 | 26 | |
| 2109 | 13 | 38 | 51 | 0 | 26 | 26 | |
| 973 | 25 | 47 | 72 | 17 | 8 | 25 | |
| 564 | 16 | 14 | 30 | 2 | 22 | 24 | |
| 5641 | 54 | 117 | 171 | 32 | 69 | 101 | Actual decrease 70 rupees. |
| 895 | 14 | 41 | 55 | 21 | 21 | 42 | |
| 1195 | 34 | 45 | 79 | 238 | 25 | 263 | |
| 826 | 12 | 18 | 30 | 21 | 32 | 53 | |
| 287 | 18 | 12 | 30 | 6 | 14 | 20 | |
| 786 | 8 | 10 | 18 | 2 | 15 | 17 | |
| 3989 | 86 | 126 | 212 | 288 | 107 | 395 | Actual increase 183 rupees. |
| 1816 | 0 | 29 | 29 | 0 | 68 | 68 | |
| 1476 | 0 | 9 | 9 | 30 | 0 | 30 | |
| 413 | 0 | 15 | 15 | 0 | 1 | 1 | |
| 1134 | 0 | 2 | 2 | 0 | 12 | 12 | |
| 4839 | 0 | 55 | 55 | 30 | 81 | 111 | Actual increase 56 rupees. |
| 1705 | 0 | 2 | 2 | 10 | 2 | 12 | |
| 1144 | 0 | 4 | 4 | 0 | 11 | 11 | |
| 1608 | 4 | 16 | 20 | 0 | 32 | 32 | |
| 1365 | 0 | 36 | 36 | 0 | 30 | 30 | |
| 2220 | 0 | 34 | 34 | 0 | 9 | 9 | |
| 8042 | 4 | 92 | 96 | 10 | 84 | 94 | Actual decrease 2 rupees. |

No.

*Jummabundee of Zillah Kumaon shewing the distribu*

| No. | Name of Pergunnahs. | *Name of Puttees.* | Total number of villages settled. | Number of pottahs. | Former jumma. |
|---|---|---|---|---|---|
| 7 | Seera, .. .. .. .. | Barbeesee, .. .. .. | 74 | 50 | 1086 |
| | | Malee,.. .. .. .. | 66 | 41 | 531 |
| | | Deendeehât,.. .. .. | 49 | 32 | 774 |
| | | Atbeesee, .. .. .. | 39 | 23 | 816 |
| | | Total 4, .. | 228 | 146 | 3207 |
| 8 | Shör, .. .. .. .. .. | Muhur, .. .. .. | 107 | 71 | 2343 |
| | | Wuldeea, .. .. .. | 86 | 74 | 1602 |
| | | Roul, .. .. .. .. | 44 | 29 | 460 |
| | | Setee, .. .. .. .. | 63 | 47 | 686 |
| | | Sone, .. .. .. .. | 55 | 39 | 870 |
| | | Khuraet, .. .. .. | 52 | 25 | 705 |
| | | Total 6, .. | 407 | 285 | 6666 |
| 9 | Askote, .. .. .. .. .. | Askote, .. .. .. | 109 | 2 | 1174 |
| 10 | Kalee Kumaon, .. .. .. | Charal, .. .. .. | 157 | 105 | 2104 |
| | | Regroobân, .. .. .. | 138 | 80 | 1798 |
| | | Goom Des, .. .. .. | 133 | 81 | 2103 |
| | | Pal Belaun, .. .. .. | 61 | 48 | 2046 |
| | | Ussee Châlsee, .. .. | 107 | 75 | 2599 |
| | | Sooee Besoong, .. .. | 60 | 47 | 1293 |
| | | Seetee Gungol .. .. | 84 | 54 | 1882 |
| | | Tulla Des, (hilly part of) | 74 | 49 | 1708 |
| | | Total 8, .. | 814 | 539 | 15533 |
| 11 | Dhesanerow, .. .. .. | Mullee Row,.. .. .. | 91 | 48 | 3055 |
| | | Tullee Row,.. .. .. | 56 | 41 | 2131 |
| | | Chowbynse, (hilly part of,) .. .. .. | 35 | 11 | 942 |
| | | Total 3, .. | 182 | 100 | 6128 |
| 12 | Ramgârh, .. .. .. .. | Ramgârh, .. .. .. | 16 | 5 | 792 |
| | | Augur,.. .. .. .. | 20 | 15 | 1070 |
| | | Total 2, .. | 36 | 20 | 1862 |

VI.

*tion of Increase and Decrease at the Revised Settlement.*

| Highest jumma of New settlement. | Decrease. | | | Increase. | | | Remarks. |
|---|---|---|---|---|---|---|---|
| | On account of waste villages. | On account of decreased jumma. | Total Decrease. | On account of niabad lands. | On account of increased jumma. | Total increase. | |
| 1071 | 17 | 14 | 31 | 6 | 10 | 16 | |
| 534 | 0 | 13 | 13 | 5 | 11 | 16 | |
| 783 | 0 | 3 | 3 | 0 | 12 | 12 | |
| 809 | 2 | 15 | 17 | 8 | 2 | 10 | |
| 3197 | 19 | 45 | 64 | 19 | 35 | 54 | Actual decrease 10 rupees. |
| 2372 | 7 | 38 | 45 | 2 | 72 | 74 | |
| 1599 | 0 | 31 | 31 | 2 | 26 | 28 | |
| 457 | 2 | 13 | 15 | 0 | 12 | 12 | |
| 690 | 0 | 23 | 23 | 2 | 25 | 27 | |
| 863 | 19 | 5 | 24 | 3 | 14 | 17 | |
| 719 | 3 | 3 | 6 | 0 | 20 | 20 | |
| 6700 | 31 | 113 | 144 | 9 | 169 | 178 | Actual increase 34 rupees. |
| 1174 | 0 | 0 | 0 | 0 | 0 | 0 | No change. |
| 2135 | 0 | 18 | 18 | 4 | 45 | 49 | |
| 1820 | 0 | 26 | 26 | 2 | 46 | 48 | |
| 2120 | 0 | 24 | 24 | 4 | 37 | 41 | |
| 2062 | 0 | 35 | 35 | 0 | 51 | 51 | |
| 2619 | 0 | 20 | 20 | 0 | 40 | 40 | |
| 1279 | 4 | 23 | 27 | 0 | 13 | 13 | |
| 1916 | 0 | 9 | 9 | 4 | 39 | 43 | |
| 1716 | 0 | 39 | 39 | 6 | 41 | 47 | |
| 15667 | 4 | 194 | 198 | 20 | 312 | 332 | Actual increase 134 rupees. |
| 3090 | 0 | 6 | 6 | 0 | 41 | 41 | |
| 2173 | 0 | 24 | 24 | 0 | 66 | 66 | |
| 949 | 0 | 11 | 11 | 0 | 18 | 18 | |
| 6212 | 0 | 41 | 41 | 0 | 125 | 125 | Actual increase 84 rupees. |
| 792 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1072 | 0 | 7 | 7 | 7 | 2 | 9 | |
| 1864 | 0 | 7 | 7 | 7 | 2 | 9 | Actual increase 2 rupees. |

No.

*Jummabundee of Zillah Kumaon, shewing the distribu*

| No. | Name of Pergunnahs. | Name of Puttees. | Total number of villages settled. | Number of pottahs. | Former jumma. |
|---|---|---|---|---|---|
| 13 | Chougurkha, .. .. .. | Salum,.. .. .. .. | 128 | 69 | 3232 |
| | | Lukhunpoor, .. .. | 127 | 82 | 2024 |
| | | Reetagurh, .. .. .. | 32 | 19 | 431 |
| | | Rungor, .. .. .. | 101 | 60 | 1282 |
| | | Dâroon, .. .. .. | 48 | 27 | 607 |
| | | Khurhei, .. .. .. | 66 | 35 | 308 |
| | | Total 6, .. | 502 | 292 | 7884 |
| 14 | Chukhata, (hilly part of).. .. | Pahar Chukhata,.. .. | 83 | 48 | 2595 |
| 15 | Kota, (hilly part of) .. .. | Pahar Kota,.. .. .. | 76 | 55 | 2317 |
| 16 | Baramundel, .. .. .. | Borarow, .. .. .. | 125 | 101 | 3756 |
| | | Mulla Seeoondra, .. | 40 | 30 | 1212 |
| | | Tulla Seeoondra,.. .. | 116 | 84 | 2540 |
| | | Mulla Teekhoon,.. .. | 47 | 38 | 1302 |
| | | Tulla Teekhoon,.. .. | 58 | 43 | 1647 |
| | | Utagoolee, .. .. .. | 71 | 63 | 2806 |
| | | Reeoonee, .. .. .. | 16 | 8 | 377 |
| | | Dooarsoun,.. .. .. | 15 | 7 | 243 |
| | | Oocheeoor, .. .. .. | 80 | 61 | 1331 |
| | | Beesowdh, .. .. .. | 48 | 36 | 1073 |
| | | Khas Purja, .. .. | 5 | 5 | 144 |
| | | Kyrarow,.. .. .. | 39 | 27 | 1446 |
| | | Total 12, .. | 665 | 506 | 17877 |
| 17 | Pâlee, .. .. .. .. .. | Mulla Dora, .. .. | 82 | 43 | 2393 |
| | | Tulla Dora,.. .. .. | 108 | 67 | 3143 |
| | | Genwar, .. .. .. | 120 | 75 | 4331 |
| | | Mulla Chowkat, .. | 83 | 46 | 4230 |
| | | Tulla Chowkat, .. .. | 105 | 27 | 4245 |
| | | Kuklasoun, .. .. .. | 118 | 49 | 2819 |
| | | Nyea, .. .. .. .. | 106 | 59 | 3553 |
| | | Seelour, .. .. .. | 120 | 71 | 3734 |
| | | Sult, .. .. .. .. | 215 | 70 | 4691 |
| | | Total 9, .. | 1057 | 507 | 33139 |
| | | Grand total 76, | 5983 | 3350 | 125584 |

Kumaon Settlement Office,
*The 1st February*, 1846.

VI.

*tion of Increase and Decrease at the Revised Settlement.*

| Highest jumma of new settlement. | Decrease. | | | Increase. | | | Remarks. |
|---|---|---|---|---|---|---|---|
| | On account of waste villages. | On account of decreased jumma. | Total decrease. | On account of niabad lands. | On account of increased jumma. | Total increase. | |
| 3338 | 0 | 7 | 7 | 0 | 113 | 113 | |
| 2078 | 3 | 6 | 9 | 1 | 62 | 63 | |
| 444 | 0 | 12 | 12 | 0 | 25 | 25 | |
| 1305 | 13 | 11 | 24 | 3 | 44 | 47 | |
| 604 | 0 | 11 | 11 | 0 | 8 | 8 | |
| 341 | 0 | 1 | 1 | 0 | 34 | 31 | |
| 8110 | 16 | 48 | 64 | 4 | 286 | 290 | Actual increase 226 rupees. |
| 2620 | 0 | 16 | 16 | 14 | 27 | 41 | Actual increase 25 rupees. |
| 2295 | 0 | 36 | 36 | 6 | 8 | 14 | Actual decrease 22 rupees. |
| 3813 | 0 | 21 | 21 | 0 | 78 | 78 | |
| 1227 | 0 | 1 | 1 | 0 | 16 | 16 | 23 Rs. decrease on account of |
| 2585 | 0 | 33 | 33 | 0 | 78 | 78 | Tea Nursery. |
| 1308 | 0 | 0 | 0 | 0 | 6 | 6 | |
| 1661 | 0 | 1 | 1 | 0 | 15 | 15 | |
| 2829 | 0 | 16 | 16 | 0 | 39 | 39 | |
| 388 | 0 | 0 | 0 | 0 | 11 | 11 | |
| 254 | 0 | 0 | 0 | 0 | 11 | 11 | |
| 1360 | 0 | 9 | 9 | 0 | 38 | 38 | |
| 1079 | 0 | 7 | 7 | 0 | 13 | 13 | |
| 155 | 0 | 0 | 0 | 0 | 11 | 11 | |
| 1513 | 0 | 3 | 3 | 0 | 70 | 70 | |
| 18172 | 0 | 91 | 91 | 0 | 386 | 386 | Actual increase 295 rupees. |
| 2445 | 0 | 4 | 4 | 11 | 45 | 56 | |
| 3213 | 0 | 1 | 1 | 0 | 71 | 71 | |
| 4514 | 0 | 13 | 13 | 2 | 194 | 196 | |
| 4260 | 0 | 8 | 8 | 0 | 44 | 44 | |
| 4315 | 0 | 5 | 5 | 0 | 75 | 75 | |
| 2849 | 0 | 13 | 13 | 0 | 43 | 43 | |
| 3575 | 0 | 15 | 15 | 0 | 37 | 37 | |
| 3758 | 0 | 25 | 25 | 0 | 49 | 49 | |
| 4864 | 0 | 7 | 7 | 3 | 177 | 180 | |
| 33799 | 0 | 91 | 91 | 16 | 735 | 751 | Actual increase 660 rupees. |
| 127112 | 230 | 1210 | 1440 | 464 | 2504 | 2968 | Actual increase 1528 rupees. |

J. H. BATTEN,
*Settlement Officer.*

# MR. BATTEN'S

# FINAL SETTLEMENT REPORT.

No. 135 of 1848.

FROM J. H. BATTEN, ESQ.,

*Senior Assistant Commissioner,*

*Kumaon Proper,*

To G. T. LUSHINGTON, ESQ.,

*Commissioner of Kumaon,*

*Dated* ————————

*Revenue.*

SIR,

*Introduction.*

Former Reports and Statements.

In the accompanying copy of a former Report,* which was forwarded to your office in June 1843, will be found a brief summary of my Settlement proceedings in the Bhote mehals of zillah Kumaon and for the Mulla or upper puttee of pergunnah Danpore. Together with this report, I have also the honor to furnish for the convenience of reference, a copy of the letter No. 2 of 1846,* dated the 6th March idem, which was sent up by me with the General Statement No. IV.; shewing the fiscal results of the whole revision of settlement, and which was followed by the sanction of Government, received in orders dated 2nd June 1846, to the new jummabundee of the district; that is, to the highest jumma fixed by me for each pergunnah. A new copy of the General Statements just referred to does not appear a necessary appendage to the present report, and I have therefore, omitted it. But as No. V. shews the order of time in which the several pergunnahs were settled, and the period of each settlement, and as No. VI. represents in an abstract form the distribution of the increases and decreases, and the several heads under which the changes in the jummas were effected, I have thought it a convenient plan to reproduce these statements, on the occasion of laying before superior authority

Statements forwarded with present report.

** NOTE, 1819.—Both reports are printed in this collection.

according to instructions the following more detailed observations.

2. As a general preface to these, a copy of the Statistical Table furnished by me on the 12th May of the present year for the information of Government will, I hope, be found an useful adjunct to the above, and I here take the opportunity of repeating the explanation concerning its preparation.

Statistical Tables.

*Rough Statistical Return of Land Revenue, Area and Population in the District of Kumaon (inclusive of Turaee.)*

| Kumaon. | 1 | Division. | | |

"It will at once be conceded that in a mountainous and "wild country like Kumaon a great difficulty attends the pre- "paration of a Statistical Return, and that only a slight ap- "proximation to accuracy in the matter of area and measure- "ments in general can be attained in the existing deficiency of "detailed survey.

"The number of mouzahs recorded in the statement cor- "respond to the number of mehals for which separate revenue "engagements have been taken, and does not show the dakhi- "lee holdings, many of which are without separate inhabitants, "and a large proportion of which can hardly boast of more "than two or three cottages. The area in square miles has "been roughly calculated for the parellels of latitude and lon- "gitude, within which the district of Kumaon Proper including "the Bhote mehals is contained, and "from this the area in *acres* has been "derived in accordance to the mode "shewn in the heading of column 4.

Explanation of Statistical Table.

"With reference to the number of cultivated, culturable "and lakhiraj acres it is requisite to state that in the hill part "of the province the sole measurements known are those found- "ed on the Nalee and Beesee, which are areas calculated on "measures of *capacity*, (having reference to the seed required "for sowing them) and on the actual *square* measure which "Mr. Commissioner Trail after many enquiries and trials de- "duced therefrom. The account is as follows.

NOMINAL MEASURE.

"2 seers of seed wheat, .... equals = 1 Nalee of land.
"40 ditto of ditto, or 1 maund, ditto = 1 Beesee.

SQUARE MEASURE.

"12 yards × 20 yards = 240 square yards = 1 Nalee.
"240 yards × 20 yards = 4800 ditto = 1 Beesee.

"In the Bhabur or plains-pergunnahs the cultivated and cultu- "rable is that of the actual survey made in acres of 4840 square "yards in 1845, and the number of actually measured acres in "the low lands was added to the assumed Beesee area of the "highlands, as exhibited in the Settlement Records and native "books of measurements.

"The total area of the province having been calculated in "the manner detailed, it follows that the real contents in acres "is very much larger than I have stated it to be, my numbers "representing the area of the plain surface covered by the hills "and answering to the base of a triangle, while the actual area "must be represented by the *superficial* contents of the sides. "It would however, be vain to attempt any theoretical approxi- "mation to the truth; actual survey alone can be depended "upon; but, with this explanation the area entered in the "statement will, I hope, be considered sufficiently accurate; "the vast extent of inaccessible mountain contained in it, being "taken into consideration; and I have therefore merely de- "ducted the cultivated, culturable and lakhiraj from the total "area of the province, and entered the result as *barren*.

"The following allotment of salaries has been debited "under the head of *Charges of Revenue Collections*, viz.:

"*Half* the salary of the Commissioner 'also Political Agent.'
"Ditto ditto of Senior Assistant Commissioner.
"Ditto ditto of Junior Assistant Commissioner.
"Ditto ditto of Sudder Umla.
"*Whole* salary of Deputy Collector.
"Ditto ditto of Tuhseeldaree Establishment.
"Ditto ditto of Canoongoe Establishment.
"Ditto ditto of Government Putwarees.

"The time of the Commissioner and his assistants is chiefly "occupied in Civil and Judicial duty, and by placing one-half "of their pay in the 'Cost of Collection,' the charge under that "head is more than is fair; but as hitherto the whole of our "salaries have appeared as those of Revenue Officers, I did not "think it right to place more than half against the Judicial and "General Department; in the same manner, it would not have "been improper to have similarly apportioned the pay of the "Tuhseeldaree and Putwaree establishments, which are in a "great measure employed on Police duties.

"In the absence of any recent census, I have added only "10 per cent. to that taken by Mr. Traill in 1824; but I am "inclined to believe that a much larger increase than this has "taken place; and, as Mr. Traill made his estimate only for "the number of houses, I have attempted no detail of the dis-

"tribution of the inhabitants. However, I may here state "that, in my opinion, the Mahommedan and non-agricultural "population do not exceed $\frac{1}{15}$ part of the whole."

Map.

3. I have also appended a small Map of Kumaon and Gurhwal extracted from *Rushton's Indian Gazetteer*, and I have in it numbered and marked off the several pergunnahs of both districts. I hope that this sketch will prove useful to those, who may peruse the two Settlement Reports.*

Bhotea Mehals.

4. Concerning the Bhotea mehals, with which Mr. Traill's paper in the *Asiatic Researches* and the printed journals of modern travellers, have made enquirers acquainted, and the physical peculiarities of which are at this moment under careful examination, assisted by all the light of modern science,†—it is only necessary for me now to add a few words. The

Joohar.

Jowahir or Joohar Pass occupies the inter-Himalayan valley of the Goree at, and below the sources of that great branch of the Gogra river. The eleven chief villages of the Joohar Bhoteas are found at heights above the sea varying from 10,000 feet to 11,300 feet, and all of them lie between the northern sides of the high snowy peaks, or *chain of greatest elevation*, on the one side, and the *water-shed* or ridge which separates the rivers which flow to India and Thibet respectively, on the other. Their position is thus extremely singular, and somewhat difficult to be understood by those who,

Bhotea Mehals, Melum, Oonta Dhoora, &c.

only looking at the great peaks from positions in the central or lower mountains, and ignorant of the fact that all the main rivers do not rise on their southern or Indian aspect, cannot understand the existence of an inhabited Cis-Thibetan region, north of what they call "the snowy range," and yet within the British frontier. The ghât into Hoon Des from Melum is called "Oonta Dhoora," and though boasting of the greatest traffic, is an extremely difficult and even dangerous route. In all the passes, but especially in Joohar, the tract above the uppermost village, or where the route actually crosses

* Note 1849.—This map with the MS. District map; and with the other materials in his possession and supplied to him enabled the Deputy Surveyor General to prepare the sheet published in this compilation.—(*Vide Preface.*)

† Note.—Vide Paragraph 24.

the water-shed, is very rugged, impracticable and forbidding in appearance, while the villages themselves are for the most part situated in easy open ground. Again, the tract immediately below the inhabited part of the valley, or where the river breaks through or flanks the highest chain, and enters the region of forest vegetation, is characterized by scenery of the most beautiful, but stupendous character,—snow beds, precipices, and waterfalls, rendering the descent by the river side into the lower regions, apparently impossible. The inter-Alpine valley of the Doulee river (also called Goree from its *white* foaming waters) is called Darma, and is separated from Joohar on its west, by the line of the great Punjchoola peaks.

Bhotea Mehals of Darma and Beeanse.

The lower part of the valley which flanks the less elevated portion of the above range at Khela, Sealpunt, &c., resembles Choudanse and parts of Tulla Joohar formerly described; and, the upper portion at Goh, Seeboo, &c., is quite Bhotea in its character. The ghât of the Darma Pass is known by the name of "*Neo Dhoora;*" and there is also an inter-Himalayan route into Beeanse, called Lebong Dhoora, but this last, like all other passes running east and west, is only open for a very brief period in each year. The occupants of the Darma villages, are the least civilized of all our Bhoteas. Losses from various causes, avalanches on their villages and roads,—murrains among their cattle and sheep—and casualties among themselves,—have tended to impoverish them, and to render them unable, (certainly most unwilling) to pay off the accumulated debt in which their dealings with the Almorah merchants have involved them. I found their land revenue assessed at Rs. 904, and I left it unaltered. The permanent collection of even this sum is already becoming a matter of doubt; and, my remarks on the inadequate payments of the Bhoteas to the state, must not be supposed applicable to Darma, though its jumma, previous to the establishment of the sole separate item, land revenue, amounted to Rs. 3,399. Darma is very little known to European travellers.

Beeanse.

The easternmost Bhote mehal of Kumaon, is Beeanse, a region recently rendered interesting by the passage through it of Lieutenant H. Strachey in his successful visit to the great lakes of Hoon Des. The two sources of the Kalee river are here found, and the vallies of the Koontee river (named from the uppermost village in its course) and of the more sacred Kalee itself, form

respectively the approaches to the two passes, Laukpya Dhoora and Lepoo Dhoora, the latter, (leading to Taklakhar,*) by far the easiest of all the ghâts. In a tributary glen of the Kalee, called Tinkur from a village of that name, and on the eastern bank of the Kalee itself, there are situated a few Bhotea villages belonging to Neipal, which are completely isolated by the snowy peaks on their east and south from all other parts of the Joomla and Dotee territory, and which except politically, form a part of Beeanse. The Beeanse Bhoteas fall far short of the Jooharees in intelligence and enterprize, which qualities added to the peculiar trading privileges accorded to them by the Thibet authorities,† enable the latter (notwithstanding the greater natural obstacles to their trade,) to far surpass the former in wealth and civilization. Many of the Beeansees, however, during the winter are found frequenting the Turace marts at Brimdeo and Sunneah, where their own river enters the plains of Hindusthan; and, I have met some of their most active traders returning from personal visits to their Furruckabad and Bareilly correspondents. The land revenue belonging to the 6 pottahs and 18 separate inhabitancies of Beeanse, amounted to Rs. 291, and I saw no reason for altering that amount. In the year 1841, previous to its temporary disturbance by the inroad of the Sikhs into Hoon Des, I made a rough statistical calculation of the trade carried on by the Kumaon Bhoteas; and, although it has found its way elsewhere into print,‡ I here insert it for facility of reference, and with a view to show what commodities are interchanged. The recent great increase in the town of Bagesur, the head quarters of the trade on the hither side of the mountains, would appear to prove the continued prosperity of the Bhoteas and those who deal with them, notwithstanding the gradual falling off in the price of borax, the main imported staple, in Calcutta and Europe. From all I can learn, however, the exports are largely increasing in quantity and value. Any liberal change in the principles and practices of the Thibetan (*i. e.* Chinese) Government in regard to the opening the communication between Hoon Des and India by the introduction into the markets, of capitalists, *dealing directly on their own account*, would probably injure the Bhotea tribes of whom we have been speaking and reduce them to their original proper charac-

Bhotea Mehals. General remarks on trade, &c.

* Note.—Also called Tuklakote.

† *Vide* Traill's printed account of Bhotea Mehal

‡ *Vide* "Pilgrim's Wanderings in the Himalaya." Agra, 1844.

ter of carriers, cattle and sheep-breeders, and road-makers. Such an event, with reference to their monopolizing spirit and inhospitable attempts to keep up and increase all the existing barriers to international intercourse, would not, I think, be much regretted beyond their own circle.

| Bhotea Mehals. | *Jumma of past Settlement.* | | | | | | | Highest Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880. | 1885. | 1890. | | | |
| | Rupees | | | | | | | | Khalsa. | |
| | 9,367 | 10,910 | 9,590 | 3,860 | 4,711 | 4,753 | 4,842 | 4,791 | 13,763 | 8,645 |
| | | | | | | | Rs. 51 | decrease | | |

## (A.)

*Memo. of Imports purchased from the Bhoteas between October* 1840 *and May* 1841.

IMPORTS.

| *Description of Goods.* | *Quantity.* | *Value.* | *Rate at which sold.* |
|---|---|---|---|
| | JOOHAR PASS. | | |
| | *Mds.* | *Rs.* | |
| Tincal or unrefined Borax, | 9000 | 45000 | The present rate is 5 Rs. per md. at Bagesur formerly 7 and 8 Rs. ℔ maund. |
| Salt,.. .. .. .. .. | 2000 | 8000 | Sold at 4 Rs. per maund, and bartered for Rice in the proportion of 3 or 4 seers of grain for one of salt. |
| Chowrees, .. .. . | 10 | 1600 | 3 to 8 Rs. per seer. |
| Zedoury Nirbisi, .. .. | 2 | 250 | 1 8 to 5 Rs. per seer. |
| Saffron, .. .. .. .. | 1 | 500 | 8 to 12 Rs. per seer. |
| Tea,.. .. .. .. .. | 2 | 200 | 2-8 to 4 Rs. per seer. |
| Pushm or Shawl Wool, .. | 15 | 750 | 30 to 70 Rs. per maund. |
| Ponies, .. .. .. .. | 60 | 3000 | 30 to 150 Rs. each. |
| Shawls, .. .. .. .. | 40 pair | 1500 | 20 to 60 Rs. per pair. |
| Chinese Dragon and other Silks, .. .. | 20 pcs. | 1200 | 100 to 125 per piece, & the plain kind from 6 to 15 Rs. per piece. |
| Blanket, Clothing, Coarse Woollens, and Serges, | 500 pcs. | 2000 | 2 to 12 Rs. per piece. |
| Goats and Sheep, .. .. | 1000 | 1200 | 1 to 1-8 each. |
| Mule Yaks (Jubboos,) .. | 50 | 1000 | 20 to 30 each. |
| Musk, .. .. .. .. | 80 tolas | 200 | 1-8 to 3 per tola. |
| | *Petangs.* | | |
| Gold Dust, .. .. .. | 1500 or 7-4 mushas | 12000 | 8 Rs. per petang. |
| Ladakh Tunnas hus or 3 anna pieces, .. .. | ——— | 7000 | Exchange at 4 and 5 per Rupee. |
| Kuldar Rupees, .. .. | ——— | 15000 | The sole cash return in India coinage. |
| | ——— | ——— | |
| Total Rupees, .. | | 100400 | |
| | DARMA AND BEEANSE PASSES. | | |
| | *Mds.* | *Rs.* | |
| Tincal, .. .. .. .. | 8000 | 40000 | 5 to 6 Rs. per maund. |
| Salt, .. .. .. .. | 3000 | 12000 | 4 Rs. per ditto. |
| Orpiment, .. .. .. | 40 | 700 | 20 to 28 Rs. per ditto. |
| Pushm, .. .. .. .. | 7 | 400 | 30 to 70 Rs. per ditto. |
| Chowrees, .. .. .. | 5 | 600 | 3 to 8 Rs. per seer. |
| Musk, .. .. .. .. | 300 tolas. | 600 | 2 to 3 Rs. per tola. |
| Coarse Woollens, .. .. | 800 pcs. | 1000 | 1 to 1-8 per piece. |
| Total Rupees, .. | | 55300 | |
| Grand Total Imports, .. | | 155700 | |
| Grand Total Exports, .. | | 79375 | |
| Difference, .. | | 76325 | Rupees. |

(B.)

*Memo. of Goods exported from Almorah to Chinese Tartary, between October 1840 and May 1841.*

EXPORTS.

| *Description of Goods.* | *Quantity.* | *Value.* | *Rate at which sold at Bageswr.* |
|---|---|---|---|
| | | *Rupees.* | |
| Sugar candy, .. .. .. | 70 mds., | 2000 | 20 to 30 Rs. per md. |
| Goorh, .. .. .. .. .. | 5000 bhelees, | 1000 | 5 bhelees per Rupee. |
| Confectionery, .. .. .. | 20 mds., | 400 | 15 to 25 Rs. per md. |
| Dates, .. .. .. .. .. | 70 ditto, | 1300 | 15 to 20 Rs. per ditto. |
| Almonds, .. .. .. .. | 25 ditto, | 700 | 20 to 25 Rs. per ditto. |
| Cloves, .. .. .. .. .. | 3 ditto, | 400 | 2 to 2-8 per seer. |
| Chillies, .. .. .. .. .. | 2 ditto, | 100 | 12 As. to 1 Re. p. seer. |
| Nutmegs, .. .. .. .. | 3 ditto, | 500 | 80 to 90 Nuts per Re. |
| Cardamums, .. .. .. .. | 1 ditto, | 225 | 5 to 6 Rs. per seer. |
| Camphor, .. .. .. .. | 2 ditto, | 250 | 3 Rs. per seer. |
| Indigo, .. .. .. .. .. | 5 ditto, | 500 | 60 to 100 Rs. per md. |
| Pewter and Salamoniac, .. .. | 2 ditto, | 150 | 1-8 to 2 Rs. per seer. |
| Khin Khabs, .. .. .. . | 7 pieces, | 300 | 20 to 100 Rs. per piece. |
| Broad Cloths, .. .. .. .. | 175 ditto, | 17000 | 2 to 12 Rs. per yard. |
| Moleskin and other Europe Cloths, .. .. .. .. | ,, | 4000 | 8 As. to 2-8 p. yard. |
| Kharwa, .. .. .. .. | 4000 pieces, | 3000 | 6 to 30 per corge. |
| Coarse Cloths, .. .. .. .. | 10000 ditto, | 13000 | 1 to 2-8 per piece. |
| Pearls, .. .. .. .. .. | ——— | 1500 | No standard rate. |
| Coral, .. .. .. .. .. | ——— | 800 | 1-8 to 16 Rs. per tola. |
| Miscellaneous Commodities such as Penknives, Buttons and Chinaware, .. | ——— | 55 | |
| Grain, .. .. .. .. .. | 9000 mds., | 12000 | Generally bartered. |
| Hardware, .. .. .. .. | ——— | 1000 | 1-4 to 2-8 per seer. |
| Tobacco, .. .. .. .. | 200 mds., | 2000 | 10 to 16 Rs. per md. |
| Beetle Nut, .. .. .. .. | 5 ditto, | 200 | 15 to 50 Rs. per ditto. |
| Total Rupees, .. | | 62875 | |

BEEAS AND DARMA PASSES.

| | | | |
|---|---|---|---|
| Goorh, .. .. .. .. .. | 7000 bhelees, | 1500 | 5 bhelees per Rupee. |
| Cloth, .. .. .. .. .. | ——— | 1000 | |
| Grain, .. .. .. .. .. | 12000 mds, | 12000 | No standard rate. |
| Tobacco, .. .. .. .. .. | 150 ditto, | 1500 | 10 to 16 Rs. per md. |
| Hardware, .. .. .. .. | ——— | 500 | 1-4 to 2-8 per seer. |
| Total Rupees, .. | | 16500 | |
| Grand total of Exports Rs., .. | | 79375 | |

## (C.)

*Rough explanation of difference according to the papers given in by a principal Native merchant of Almorah.*

| Expences as follows. | Rupees. |
|---|---|
| Sheep and Goats purchased for carriage, .. .. .. | 10000 |
| Cotton Cloths purchased for apparel, .. .. .. .. | 4000 |
| Coarse Thibetan Woollens, re-purchased for apparel, .. .. | 4000 |
| Government Land Revenue, .. .. .. .. | 4819 |
| Interest of Loans from Almorah Merchants, .. .. .. | 15000 |
| Expences of Jubboos, Goats and Sheep for domestic use, .. | 4000 |
| Loans advanced by Bhoteas, .. .. .. .. .. | 4000 |
| Losses of all kinds, .. .. .. .. .. | 6000 |
| Total Rs., .. | 51849 |
| Profit balance in favor of Bhoteas, .. .. .. | 21476 |
| Difference between Exports and Imports, .. .. .. | 76325 |

## (D.)

*Memo. of Goods sold to the Bhoteas of the Joohar Pass, by Merchants of Almorah and other Traders, from the 15th May to 15th June 1841, at Munsheearee, according to a rough Native calculation, made in the Settlement Camp of* J. H. Batten, Esq.,

| | Rupees. | |
|---|---|---|
| Broad Cloth, .. .. .. .. .. .. | 4000 | |
| Moleskin, .. .. .. .. .. .. | 800 | |
| Satin Jean, .. .. .. .. .. .. | 300 | |
| American Drill, .. .. .. .. .. .. | 450 | |
| English Chintz, .. .. .. .. .. .. | 300 | |
| Do. Calicoes, Muslin, Linen, &c., .. .. .. | 1000 | |
| Velvet, .. .. .. .. .. .. .. | 400 | |
| Indian Chintz, Calicoes, &c., .. .. .. .. | 4700 | |
| Pearls, .. .. .. .. .. .. .. | 700 | |
| Coral, .. .. .. .. .. .. .. | 400 | |
| Indigo, .. .. .. .. .. .. .. | 350 | Less this year than usual. |
| Spices, .. .. .. .. .. .. .. | 160 | |
| Sugar, .. .. .. .. .. .. .. | 150 | |
| Dehlee Valuables, Precious Stones, Jewellery, Curiosities, &c., .. .. .. .. .. | 500 | |
| Total, .. | 14210 | |
| **Brought for sale by Zemindars.** | | |
| Grain, .. .. .. .. .. .. .. | 600 | |
| Tobacco and Oil, .. .. .. .. .. | 200 | |
| Grand Total,* .. | 15010 | |

* In one month at one place, viz. Munsheearee, half-way between Bageswr and Melum.

Note. 1.—Payment for the above goods is rarely made in cash, but bonds are taken, made payable in cash and goods at the season of return traffic.

Note 2.—1849. In the above account of the Bhote Mehals of Kumaon the word *Hoon Des* or country of the Hoonias (Huns?) has been substituted for the former spelling *Heoon Des*, or snow country, the latter word being proved quite as incorrect as the "Oondes" or wool country of Moorcroft.

Danpoor described.

5. The pergunnah of Danpoor in Kumaon (partially described in the former report) is in many respects similar to pergunnah Nagpoor in Gurhwal. Though it cannot boast, like the latter of celebrated shrines and sacred peaks visited *from afar* by a constant influx of pilgrims, yet it is something to possess in *Nundidevi* the loftiest spot of earth in the whole British Empire.* At the base and from the spurs of this "giant of the Eastern Star," and its neighbour Nunda Kote, rise the three rivers which give a character to the pergunnah and separate its eastern part into three great vallies, viz., those of the Pindur, the Surjoo and the eastern Ramgunga; while its western half is drained by the Gaomuttee and its affluents, uniting with the Surjoo at Bagesur. This last named holy, and at the same time secularly distinguished place, and the ruins, of the most ancient seat of puharree power at Byznath,† render the western division, or Mulla and Tulla Kuttoor, locally illustrious; made still more so by a Hindu or Hill tradition, that when the years of sanctity for Hurdwar and the Ganges shall have been accomplished, the River-virtue will be transferred to the Sardah, and be found chiefly glorified on the Surjoo at Bagesur.‡

The fiscal history of this pergunnah is shown in the following Table.

| | *Jumma of past Settlement.* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880. | 1885. | 1890. | Highest Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
| Danpoor. | Rs. 3187 | 3842 | 4161 | 4432 | 5522 | 5576 | 5711 | 5641 | *Khalsa.* 12196 | 6697 |
| | | | | | | | Rs. 70 decrease. | | | |

* Note.—Dwalagiri, Kunchun, Jinga, Dhaibun, &c. are in Neipal and Thibet.

† Note.—For an account of the Kuttoora dynasty and indeed for a general abstract history of the Kumaon Raj, *vide*, my "Notes on the Kumaon and Rohilcund Turaee," published in *Journal of Asiatic Society of Bengal*, No. CLV. 1841.

‡ Note.—Probably the dwellers on the banks of the *Nerbudda* would reject this tradition with indignation.

Assessment.

Of the decreased jumma at the revised Settlement, Rs. 25 belong to Tullah Danpoor and Rs. 53 to Kuttoor, while the jummabundee of Mulla Danpoor shows an increase of Rs. 8 partly owing to nia-abad leases. In the No. 6 Statement will be seen what portion of the decrease is owing to the exclusion from the settlement of mouzahs recently fallen waste. Indeed that statement accounts minutely for the whole jummabundee of each separate puttee of each pergunnah, and it would be, I humbly conceive, an useless cumbering of this report, besides a waste of time, to make each item the subject of detailed explanation.

*Mahamarree Fever.*

The agricultural prosperity of Danpoor and Kuttoor is not great; where the soil is best, and where facilities for irrigation abound, there unhappily (as for instance in the hot glen of the Surjoo) the climate is inimical to the increase of population, and the exceeding heaviness of the jungle tends to perpetuate the animal scourges of the hills in the shape of tigers, bears, and leopards. Of late years, too, the fatal *Mahamarree* fever has crossed over from Budhan, and made its appearance among the upper villages of the Pindur and Surjoo; thus, diminishing the existing number of cultivators, and frightening away the surplus members of overgrown communities, and the surplus tenants of occupied lands, who would otherwise be available for breaking up new lands. In favorable contrast to this calamity, I may record the improved state of Kuttoor, in the lower puttee of which at and towards Bagesur, the cultivation is fast increasing and the climate being proportionately bettered; and in the upper puttee of which, where it has been always most difficult to understand the causes of unhealthiness, a visible addition to the land under tillage, and some restoration of inhabitants to deserted spots have occurred especially, I am happy to observe, since the conclusion of the settlement. Still the broad vallies of the Gurroor and Gaomuttee at nearly 4000 feet above the sea afford a melancholy spectacle to those, who at lower elevations in Palee and elsewhere, and in situations apparently far less favored by nature, are accustomed to see the whole level a sheet of cultivation surrounded by cheerful and populous villages. At one time, too, from the citadel of Runchoola above their capital, Kuttoor, the ancient rulers of the hills must have looked down and around on an almost unbroken picture of agricul-

Kuttoor described.

Kuttoor.

tural wealth; for, not only in the vallies, but up three-fourths of the mountain sides, now covered with enormous forests of pine, (especially in the west and south-west towards Gopal-kot and the other great fountain heads of the Gurroor, and Kosilla) the well built walls of fields remain in multitudinous array, terrace upon terrace, a monument of former industry and populousness, and only requiring the axe to prepare an immediate way for the plough.

Valley of Byznath.

The valley of Byznath being situated on the frontier of Kumaon with Gurhwal, and in the neighbourhood of Budhan Fort, was often in all probability the scene of border conflicts and military exactions; and the desertion of villages once having commenced, and no means of restoring the population being at hand, the deterioration of climate, originating in the spread of rank vegetation and the neglect of drainage, &c., may be supposed to have gone on from worse to worse, till finally the heat and moisture were left to perform all their natural ill offices unchecked by the industry and efforts of man. Viewing however the present slight improvement in an hopeful light and remembering the less favorable situations in which nurseries are thriving, I am of opinion that the district of Kuttoor (Byznath) would be found the one most deserving of selection for the future spread of the Kumaon *Tea* cultivation. Irrigatable unoccupied lands, at between 3000 to 5000 feet above the sea, abound on the lower slopes of the hills, while much of the good land in actual possession is occupied by migratory tenants at will (sirthan or paekasth assamees) unattached to the soil, in whose place the Pudhans of villages could have no reasonable objection to see profit-paying, wealth-planting *gardeners*. The very fact that at the present settlement (which took place before any discussion arose concerning the *extension* of the Tea experiment) 17 pottahs of villages were in Kuttoor obliged to be made over to non-proprietary *moostajirs* or farmers, the richer or less desponding neighbours of the resigning Pudhans; shews that available ground was at our disposal. Both there and in pergunnahs Gungolee, Shör and Seera, the sole expense in securing the land, would have been (and even now in many places would still be) the wiping off the jumma from the revenue books, probably some paltry sum of less than 20 rupees per annum.

Tea-nurseries proposed in Kuttoor.

Tenures in Danpoor and Kuttoor.

Throughout Danpoor and Kuttoor, the tenure of land among the old es-

tablished communities, is almost entirely hisschdarree, or bhyachara, each hisschdar holding in actual separancy his own fields and paying his quota of revenue to the elected Pudhan. Where the lands have often changed hands and where it is difficult to keep up a permanent tenantry, the Pudhan, who holds the lease may be considered as nominal proprietor of the soil, and at the next revision of settlement, all those who are now recorded as farmers, and whose farms of resigned or waste lands may then be found in a flourishing state, should, as a matter of course be allowed the full proprietary claim, only modified by the engagements, which they themselves may have made with the cultivators. These engagements will probably be found highly favorable to the latter class; for, in the present demand for agricultural labor, only the very best terms, almost amounting to an absolute right in the lands allotted to them, will secure the location of assamees. In Danpoor, among the numerous representatives of villages, three principal Pudhans, Mulhuk Sing, Lall Sing and Futteh Singh, the former, the head of the Takolee tribe of Rajpoots, the two latter of the Korunga tribe, are found in possession of the *thokedarree* pottahs, privileges and influence. The first only entitle them, according to custom every where, to three per cent. on the jumma of each village, and to a fee of one rupee on the marriage of each Pudhan's daughter, besides portions of the goats and deer killed in festive occasions. But in upper Danpoor, where the habits and feelings of the people are simple and primitive, the thokedar occupies an almost feudal place in their estimation; and while they would strongly resent the slightest interference with their actual hereditary hold of the soil, the smaller Pudhans and village hisselidars are found willingly paying to their thokedars (especially to Mulhuk Singh, a rough and coarse-clad peasant) an amount of dues and service, which head-men of the lower pergunnahs would in vain look for from their more civilized and republican communities. The wealth of Mulhuk Singh and his people in a great measure consists in flocks of sheep, for which the high ranges and meadows along the Pindur and Surjoo, afford magnificent pasture ground, and for the purchase of which as pack-carriers in the salt, borax and corn-trade the Bhoteas are constant and near customers. In Kuttoor also there are only three thokedars, Muddum Singh Dosad; and Poona, and Gooman Singh both of the Puddear family; but the poverty of the inhabitants, and the different character of the country and customs preclude the extension of the thokedarree privileges beyond the ordinary

Danpoor and Kuttoor Thokedars, &c.

limits. The influence, however, of the first named individual would probably be found highly useful in any arrangements connected with the Tea-growing experiment in his district. Poona Puddcar is involved in family disputes, and the case concerning his thokedarree pottah between himself and his connexion Gopee, is still before the courts. The latter litigant was in my opinion unnecessarily incited to ambitious views by the Deputy Collector and Tuhseeldar in the course of the settlement, and, as no greater stability in the revenue arrangements seemed attainable from the appointment of a new man without capacity, capital, or great popularity, and, as I had reason to suspect that Gopee had, by exciting intrigues at Jakhera and elsewhere, tended to bring about the general resignation of leases and separation of large into small Pudhanships, which impeded the settlement operations in Kuttoor, I have hitherto thought it advisable to continue my whole support to Poona, the member of the tribe whom I found in possession of the headship.

6. Pergunnah Gungolee.

| *Jumma of former Settlements.* | | | | | | | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|
| 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1555 Sumbut. | 1890 Sumbut. | | | |
| | | | | | | | | Khal | sa. |
| Rs. 1820 | 2035 | 2120 | 2698 | 3278 | 3538 | 3806 | 3989 | 15933 | 7742 |

Total increase Rs. 183.

Gungolee described.

This pergunnah consists of the lower half of the mountainous Doab between the rivers Surjoo and east Ram Gunga, and is separated from the Phoongurh river-glen and adjacent parts of Tullah Nagpore by a range of hills breaking down on the west-side gently to Bagesur, and ending on the east-side in the high and abrupt peak of Kalee-Nag. The junction of the two great rivers takes place at Rameswur, whence the united waters under the name of Surjoo flowing to Pachesur and the Kalee

river, separate the two pergunnahs of Shör and Kalee Kumaon. There are five puttees or sub-divisions, viz., Bel, Burhaon, Kumseear, Uttgaon and Poongraon, of which the first named occupies the peninsular tract stretching down from Gungolee Hâth to Rameswur, Burhaon the central and eastern division of the pergunnah, Uttgaon the western, and Poongraon the northern portions. In regard to the agricultural products, Poongraon is the best puttee, and the inhabitants find a ready and profitable sale for their corn among the Bhoteas. A few villages near the Ramgunga are hot and unhealthy, but less so than similarly situated places lower down the river. In Burhaon at a convenient spot above the Ramgunga, called *Thul*, is held every year in April a great fair, at which all the trafficking transactions between the Bhoteas of the three passes and the hill people are *completed*, previous to the departure of the former for their own country. Of the increase of jumma, viz., Rs. 238 in this puttee credited to nia-abad, Rs. 220 belong to 24 villages, the land revenue of which had been hitherto included in the copper mine mehal, but to which have now been granted, as in the similar case of Dhunpoor, separate mouzahwar settlements.

Thul fair.

Assessment.

The mines at Rae and its neighbourhood now stand on their own mineral capabilities, and the lessees are dependant on free labor* for the mining operations and the supply of fuel, &c. At present owing to the want of capital and means necessary not only for transforming the present miserable burrows into galleries, but even for re-opening the ruined adits, and reaching the last worked copper veins, the sayer revenue derived from these mines is only Rs. 101 per annum! There is no reason whatever for supposing that the mineral wealth beneath the soil is at all exhausted, and both in facilities for procuring fuel, and in salubrity of situation, I consider Rae to be quite equal to Pokhree in Gurhwal, to which however it must entirely yield the honor in regard to the character and manners of its laborers. Except on the high tableland of Gungolee Hâth itself the villages in Bel are for the most part poor and ill situated. Those in Burhaon are generally better, but both these districts and a large portion of Uttgaon and Kumseear are excessively jungly and harassed by the visitations of tigers. In some of the

Copper mines.

Jungly nature of the country.

* Note.—Vide my Report dated 7th November 1842, No. 15, and your Reply dated 4th December 1842, No. 126.

tracts near the rivers, notorious "man-eaters" are hardly ever absent, and at times the loss of human life is considerable—very few of the inhabitants are *Shikarrees*, and the Government reward of Rs. 10, given for each tiger killed, is found an insufficient inducement to create in Gungolee a body of hunters, whilst the poverty, and also, I am sorry to say, the inhospitality of the villagers, is such that, though they often apply to the authorities for aid against their brute enemies, they are almost always found unwilling to provide even the commonest supplies of provisions for the local sepoys and armed chuprassees occasionally sent to assist them.

Tigers.

Owing chiefly to the addition of the mine villages to the rent roll, the actual jumma of pergunnah Gungolee shows an increase of Rs. 183 per annum, and a good many of the waste mouzahs (principally resigned dakhlee lands) may be expected to become nia-abad within the period of the settlement, and thus somewhat swell the revenue. But, with reference to the sudden desertions and migrations for which Gungolee has always been celebrated, I think we shall be fortunate, if we find the present amount of revenue stable and undiminished, until the 20 years expire. The sum total of Rs. 3,989 is distributed among 381 cases showing an average jumma per pottah of less than 11 rupees; and, if the separate inhabitancies are taken into account, the payment per hamlet is only 7 or 8 rupees. Indeed pottahs of Rs. 2 and 4 are far from unfrequent, and in the whole pergunnah Rs. 107 form the total amount of all the petty increments taken by the Deputy Collector and myself, even on such petty jummas. In such a country, the Settlement Officer is quite helpless. He must deal with the inhabitants and the resources of the country just as he finds them. He cannot import wealth or population, nor can he change idle Brahmins (who abound in Gungolee) into active agriculturists. His whole work, therefore, becomes a task of mere re-arrangement and re-distribution. Even in one case viz., that of mouzah Mungur in puttee Burhaon, where I found more than 40 acres under cultivation (a *large portion thereof irrigated)* and where I insisted on the old jumma of Rs. 4 not being allowed any longer to disgrace the books, I had the greatest difficulty in obtaining a durkhast for Rs. 12! Once on a time three persons, all nearly related had been killed in this village by a tiger

Assessment.

Extraordinary low jummas.

and hence the subsequent non-location of assamees and the Pudhan's excuse, that, though in some years his paekasth cultivation might cover an extent of 70 beesees, instead of 40 beesees; in others his land *might* be made from one accident totally waste. It is with reference to cases like these, and to the general state of affairs in Gungolee, as above described, that, I have named this pergunnah as one of those most favorable for the Tea growing experiment. I do not fear the expulsion of well-armed, and, what is better, well-paid mallees from their fenced nurseries even by the combined efforts of all the *ferœ naturœ* of Gungolee.

Tea-growing experiment, suggested in this pergunnah.

The tenure in this pergunnah is bhai-bhaut or bhyachara, though in one solitary case, that of Bula Turee in Bel, the Deputy Collector has recorded a *zemindarree;* because, though the inhabitants hold the lands separately in khaëkwiee or old occupant possession, they pay to an absentee Pudhan, Gunga Bullub Punt Soobadar, at Almorah 1-8 per annum malikana in addition to the Rs. 4 Government revenue and the ordinary Pudhancharree dues, and also carry his dandee for him, whenever he visits his estate! Besides the niabad malgoozarees, there were ten farm engagements taken at the settlement on account of pottahs resigned by their former Pudhans for which no proprietary hisschdars were forthcoming. In the whole pergunnah, there are 19 thokedarees. Many of them, where the communities are Brahminical, are merely nominal in point of value to the holders, but not so in regard to their useful unpaid police and purveyance duties, the burden of which, even the most non-paying corporations take care to throw as much as possible on their headmen. Of the thokedars, Bhola Dutt, Patuk, Ootum Sing, Mahta and Gujai Sing, Baphila, are the most intelligent and influential.

Gungolee tenures, farms, thokedars, &c., &c.

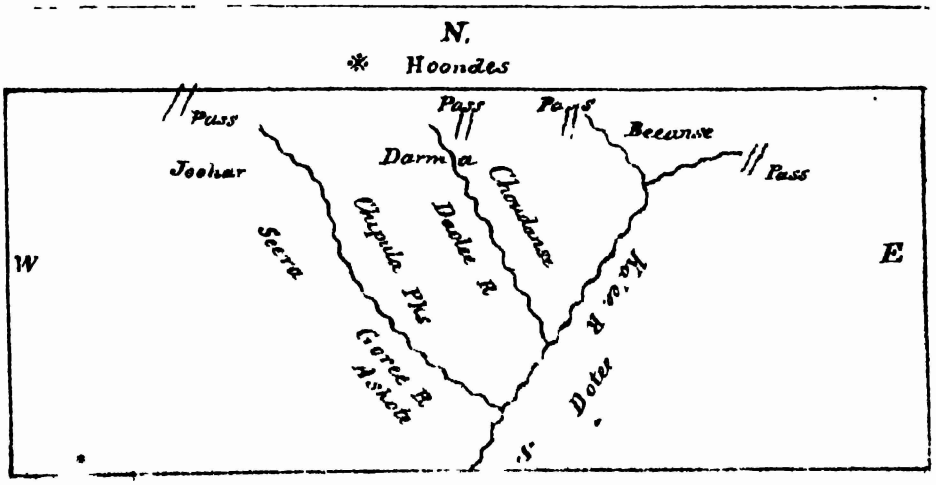
There were no disputes of any note in this pergunnah. Most of the quarrels were satisfactorily arranged by the separation of dakhlee from uslee mouzahs, rendering the former independent and enjoying the dignity of their own pottah. The *phurd phants* or revenue and rent rolls were framed under the superintendence of the indefatigable Deputy Collector Umba Dutt, and in this easy record of their rights and liabilities the people are, I hope, beginning to feel a security against fraud and litigation, to which they were previously strangers.

## 7. Askote.

| Jumma of former Settlements. | | | | | | | Highest new jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|
| 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1885 Sumbut. | 1890 Sumbut. | | | |
| | | | | | | | | Khalsa. | |
| Rs. 709 | 838 | 915 | 996 | 1095 | 1095 | 1174 | 1174 | 1464 | 853 |

Askote described.

The talooqua of Askote, consisting of two zemindaree estates of 84 and 25 mouzahs respectively is situated on the right bank of the Kalee river below Chowdans and north of the great Dhuj Mountain which separates it from Shör. It is geographically a puttee of pergunnah Seera, next to be described. The junction of the Goree river with the Kalee takes place immediately below the fine ridge on which Askote itself is situated. The portion of the palooka which lies along the river is excessively low and hot, as proved by the forests of sal, sisoo, khyr, and other tropical trees with which it is covered. The slopes stretching down from the high southern hills, and the Askote ridge itself, are open and healthy, and the position of the tract is favorable for the sale of its products to the Bhoteas, large parties of whom winter within its borders. In a military point of view the ridge of Askote may be considered the key to the Darma and Beeanse passes; for, the great Chipula range which divides the Goree from the Daolee and Kalee can hardly be considered passable, even if the former river were no obstacle; and thus the only entrance to the upper country is by following up the bed of the Kalee.*



The zemindaree of Askote has been held for many generations by the same family of Soorujbunsee Rajpoots, bearing the generic name of Pal and the title of Rajbar, and deriving their origin from the *Mull*, a younger line of the *Sahee* hill dynasty. Their former seat was at a Fort called Lukhumpoor between the Goree and the Kalee, but on the conquest of Seera then an integral part of Dotee by Rutunchund, Raja of Kumaon, through his partizan Poorkh Punt, the Pal Rajbars moved up to Dewul (Askote), and were placed in charge of the *new* frontier on the Kalee, the old frontier line between Dotee and Kumaon being the east Ramgunga river. Branches of the same family are still common in Dotee. The present head is Buhadoor Pal, who succeeded his nephew Duljeet Pal in 1840 A. D.

The Rajbarry family.

The estate had been divided three or four generations previously into two shares, of which the smaller one of 25 villages came by regular succession into the hands of three brothers, Pirthee Singh Lalla, Surbjeet Singh Lalla, and Mokhum Singh Lalla. At the last settlement in 1889 Sumbut, Mr. Commissioner Traill allowed a separate malgoozaree pottah for Helpea and its 24 dakhlee mouzahs, to Mokhum Singh, while Dewul and 83 villages remained in the Rajbarry pottah The debts of these brethren soon after became very large, and they were involved in civil suits with their creditors at Almorah. Mokhum Singh absconded to Dotee, but Pirthee Singh was for some time confined in the civil jail. The final result was that in 1843, their estate was sold in satisfaction of decrees of Court, and the principal creditor Kishna Syall became the purchaser. His elder brother Hurloll Syall had previously in the course of the litigation mysteriously disappeared, and foul play on the part of the debtors and their friends had been suspected. The new settlement was made with the auction purchaser at the former jumma of 273 rupees. On his afterwards in 1844, going formally to take possession of his estate, Kishna was himself murdered by the sons of Pirthee Singh and Mokhum Singh, and the murderers immediately fled across the Kalee, and have ever since been concealed in the Neipalese territory.

Recent disastrous history of the 2nd estate in Askote.

The heir of Kishna Syall being a minor, his villages were made over to the care of Buhadoor Pal the Rajbar, who accounted for the proceeds and management to myself as Collec-

tor. But in 1847, the property was again sold in satisfaction of a decree of 1,600 rupees in favor of Toola Ram Sah, (Treasurer of the Almorah Collectorate) *versus* the estate of Kishna deceased; and again, the decree-holder became the purchaser. In February of the present year, the regular transfer of the villages was made to Toola Ram Sah, who is now the zemindar of that portion of Askote. During the minority of the last owner, opportunity had been taken to examine into the state of each village, and the condition of the cultivators both in this and the Rajbar's estate were found to be emigrants from Dotee. The recorded nikasee of the two estates is as follows:—

Zemindaree profits and dues in both estates.

| Name. | Total Government Jumma. | Total Cash Collections. | Total Collections in kind. | Cash profit. |
|---|---|---|---|---|
| Dewul, &c., .. | Rs. 901 | Rs. 1195 | 300 Rindeeas or local maunds of Corn, .. = | Rs. 294 |
| Helpea, &c, .. | Rs. 273 | Rs. 343 | 18 Rindeeas or local maunds of Corn,.. = | Rs. 70 |

In addition to these the Rajbar has seer land to the extent of 11 tulaon or irrigated beesees in Dewul itself, and the whole profit which may arise from his location of new cultivators in waste lands. The customary *dues* (sâg-pât, locally called *dala doke*) vary in each village, but for the most part they consist of periodical offerings of ghee, oil, honey, phullel, (vegetable butter) and goats. The extraordinary duties come under the head of *teeka bhet*, and consist of personal service in carrying dandees and loads, and occasional presentations of money. These last are of course, not enforced by the Courts, though alluded to in a general manner in each village ikrarnamah. Toola Ram Sah has not recorded the reservation of any seer land, but in other respects, his claim to malikana resembles that of the Rajbar. The migratory and unstable character of the assamees close to the frontier makes it the interest of the proprietors to treat their people well, and there is every probability that a considerable quantity of new land will be brought under tillage in the estates of Buhadoor Pal.

New proprietor of 2nd estate.

From my knowledge of Toola Ram Sah's character, I have very little hope of his making advances and otherwise improving his property with a view to distant returns. But,

on the other hand I have no fear, bad as his name as a landlord elsewhere may be, that in this part of his property, he will attempt any irregular exactions. The particular benefit to its possessor of the Rajbarry distinction itself, the right to which has, like that in thokedarry, been always considered as derived purely from the will and pleasure of the Government and its agents, is the corresponding power of the Rajbar to make his own arrangements for the maintenance and provision of all members direct and collateral of his family, unfettered by fixed laws of division and inheritance. The great separation of the talooqua, which occurred for the benefit of the ancestors of Mokhum Singh, &c., received the sanction of a Raj-sunund, and extraordinary circumstances would again, according to this precedent, justify the interference of the State. But as a general rule, it has been hitherto assumed that, so long as the Rajbar provides decently and respectably for his clan, he is himself entitled to the full enjoyment of all the profits and privileges accruing from the Rajbarry estate.

The rights and privileges of the Rajbar himself.

8. Seera.

| *Former Jummas.* | | | | | | | Highest new Jumma. | Total appropriated Beesees | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|
| 1872 Sumbut. | 1878 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1885 Sumbut. | 1889 Sumbut. | | | |
| Rs. 1791 | 2183 | 2356 | 2736 | 2984 | 3103 | 3207 | 3197 | Khalsa 13329 | 8399 |

Total decrease, Rs. 10.

Seera is situated immediately below Tulla Joohar, and opposite Gungoleee, between the rivers Ramgunga and Goree. There are four puttees—of which Barabeesee and Athbeesee occupy the eastern portion facing the Kalee;—Deendeehath the centre immediately under the great range of Bhaga Ling and Seerakot; and Malee the western side towards the Ramgunga. The part that lies along the Goree glen is excessively jungly and savage and quite uninhabited. Indeed in Webb's map of Kumaon (No. 66 Indian Atlas) the course of the Goree below

Seera described.

Moonshearee and above Askote is left blank. The Kalee and all its branches are very remarkable for the deep cuts in the country which their beds make, thus causing tropical scenes in the mid-Alps, and up to the very spurs of the snowy range, and opening a way for the Flora of the plains and some of their Fauna (the predaceous part especially) into the heart of the mountains.

The conspicuous fort of Seera-kot was once the seat of the Mull branch of the Sahee dynasty of Dotee; and Deendeehath derived its name from the bazar formerly existing there.

Seera-kot Fort.

The separate *seer* of the *Ranee* in the adjacent tract was nominally represented by the fractional term *Athbeesee*, while *Barabeesee* formed the military and chowkeedarree appanage. After the disappearance of this petty Raj and the inclusion of Seera in Kumaon (as alluded to in the account of Askote) Seera-kot became the State-prison of the Chund Rajas, and was finally infamous as the death-scene of the last legitimate Raja of Kumaon, Deep Chund, who was there made away with under the orders of his spuriously-descended cousin, the usurper Mohun Sing. Seera is celebrated for its copper mine situated at Agur in Thalgaon, puttee Barabeesee. There were no lands attached to the mining lease. The mine is at present under *kham tuhseel* management, and yields hardly any proceeds. The last farmer had great difficulty in paying the small jumma of Rs. 85 per annum. This unprosperous state of the Seera mines, is chiefly owing to the want of population to work them. The ordinary Khusseas of the agricultural villages in Kumaon Proper, are averse to laboring in mines, and leave the task to low caste Agrees. These last are rapidly diminishing in numbers, from deaths and desertions, while the members of the surviving families are, in a truly frightful proportion, afflicted with cretinism and goitre*. The prevalence of these diseases in peculiar spots, is not yet in my opinion accounted for on any sound hypothesis founded on philosophical induction. Dr. McLelland's theory of their origin in calcareous fluids affecting the human constitution, has a superficial and even brilliant appearance of merit; but unluckily for its uni-

Copper mines in Seera.

Goitre and cretinism at the mines.

* Note.—Vide McLelland's "Geology of Kumaon."

versality (one great test of truth) the exceptions to its facts are overwhelmingly numerous, and bronchocele is found to exist in melancholy vigour among clay-slate and other formations, and in districts where lime-stone rocks are utterly unknown. In Seera however, the Agrees in their recklessness and apathy, appear to court disease and death; for, notwithstanding the existence of apparently wholesome springs at no great distance in their neighbourhood, they persist in drinking the water, which percolates, from the metalliferous beds in the dolomitic and talcose deposits. I pointed out to them the blue cupreous stains on the rocks surrounding their well, and warned them of the poisonous nature of its water, but their laziness soon overcame their fears, and my cautions have, I fear, been long since neglected.

Jumma.

In Seera the petty changes in the jummas of villages, amounted to Rs. 45 decrease and Rs. 35 increase, and the general assessment there, as elsewhere, was regulated by the principles laid down in paragraph 6 of the Gurhwal Report, the commencement of which is here repeated.

Mode of assessment in Seera and elsewhere.

"The jummabundee now forwarded for the approval of "the Board and the Government, has "been founded on the past payments "of each estate, or set of estates, "viewed in relation to its present state of prosperity as shown "by the state of cultivation, the number, character and health "of the inhabitants, the locality of their possessions and their "general resources, whether mercantile or agricultural, as "fairly proved according to the opinion of their influential "neighbours, consulted in open punchayet on the subject." Especially in doubtful pergunnahs like Gungolee and Seera, it was found most important to avoid the ill effects of any attempt to fix *previously* the whole jumma of any puttee, and then to arrange its distribution without any really trustworthy data, according to some imaginary calculation of capabilities. The whole jumma was only safely arrived at by the individual mouzahwar settlements. At the same time the loyalty and good sense of the thokedars and pudhans have been generally found by the Deputy Collector and myself sufficient of themselves to prevent any unfair and unnecessary loss of revenue to the State; and there has rarely been any long concealment of the propriety of advancing or recurring to a higher jumma in cases where Mr. Traill had suspended an increase or allowed a decrease, merely on temporary grounds.

Mouzah Duntola in puttee Barabeesee, formerly paying a small jumma of Rs. 17, fell entirely waste before the new settlement, and this amount of revenue was of course obliged to be sacrificed, and a little nia-abad lease of Rs. 2 at Balna in Athbeesee was also abandoned. This loss, however, is just balanced by Rs. 19, recorded under the head of nia-abad in this pergunnah. The most flourishing part of Seera, if we except the beautiful upland valley of Deendeehath, is to be found in puttee Malee at Bulteer and similar villages above the Ramgunga, near the ghâts which lead to the three markets of Bagesur, Thul and Tejum. But in some parts of the Ramgunga valley, the villages are separated by belts of the deepest jungle; (chiefly of sal and bamboo) and from these, issue forth the tigers, leopards, bears and deer, which render agricultural operations in that part of Kumaon often so hazardous and the crops so precarious.

Farms.

Farming leases were only had recourse to in five small mouzahs; none of these deserve particular notice, as the total jumma concerned in them, only amount to Rs. 15.

Tenures in Seera.

The land in Seera is held on the Bhai Bhut tenure, and there is only one case (viz. that of mouzahs Seeall and Bujolee in puttee Deendeehath) in which the Deputy Collector recorded a zemindaree; his reason being that the pudhan Golab Singh Duseela possessed no *huljote* of his own (except one beesee huq pudhanee), and yet was entitled by prescription to the malgoozaree pottah. As the villagers hold each their own land as khaeckuns, and pay their quotas of *Government revenue*, through the pudhan, who only collects in addition a few customary dues; the term applied to Golab Sing's tenure of the village in question is, of course, mis-applied.

Thokedars in Seera.

The number of thokedars in Seera are eleven, and none of them are men of much note and influence. Khooshal Sing Busseera (deceased since the settlement) used to farm the copper mines, but his management was always bad; and of the rest, Chunchul Sing, Baphilla, at Deendeehath, is perhaps the most intelligent. Some of the Seera puharees have latterly found it their interest to leave their jungles, and to take up the trade of coolies at Nainee Tal. Many parts of Seera are favorable for the growth of tea, as formerly mentioned.

Seera favorable for Tea growing.

## 9. Shōr.

| Name. | Former Jumma. 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1881 Sumbut. | 1885 Sumbut. | 1899 Sumbut. | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| Shor. | Rs. 3181 | 4004 | 4589 | 5492 | 6131 | 6620 | 6666 | 6700 | Khal sa. 23482 | 15330 |

Increase Rs. 34.

Shor described.

The well known military outpost of Petoragurh is situated in the centre of this pergunnah, just where a spur of the Chundak ridge (dividing the affluents of the Ramgunga from those of the Kalee river) enters the great upland valley of Sence* Shōr. The whole tract, which is separated from Seera by the Beechil river and Dhuj peak, lies in the peninsula between the Kalee and Ramgunga, and the various ridges and spurs of the two great mountains Dhuj and Thakil demarcate the separate puttees. They are 6 in number, named from the tribes who inhabit or have predominance in each, and all radiating from the above named central plateau in Muhur. Sethee extends to the deep Ramgunga glen, and contains the beautiful upland vallies of Chana and Goreng. Sone runs along the Okul and Kalee rivers to Puchesur.—Raol is in the direction of Rameswur—Kuraët stretches up northwards to Sutgurh, whilst the villages belonging to Muhur and Waldeea cluster round the broad bases of Thakil and Dhuj, and may be considered, especially Muhur, the fairest portion of eastern Kumaon.

Products.

In these last and in puttee Sone, sugar-cane, tobacco and cotton are far from uncommon products, but they are grown for home-use and consumption, and can hardly be considered as agricultural staples. The cereal grains of all kinds are most abundant; in fact the country is a perfect garden.

* Note.—Level, lawny.

Character of Shör people—factions in Shör.

The inhabitants of Shōr, though brave and active, are a fickle and factious* race; and their country, even more than Kalee Kumaon, still continues to be the seat of the two hill parties or *Dhurras*, the *Mara*, and *Furtial;* which elsewhere in the province are fast dying out, and are being succeeded by factions deriving their origin from the opposition of *existing substantial* interests. It would be difficult for even the most determined Mara to state on what real grounds his *hereditary enmity* to a *Furtial* is founded, and *vice versâ;* or, for either party to explain, in what differences their distinctive watch-words arose. Perhaps the clanship of the Scottish highlands somewhat resembles the Kumaon "Dhurrabundee," but the former has for some time ceased to interfere with the order and well-being of society, whereas the latter still causes constant violations of truth, peace and charity; and often renders an appeal to justice and law fruitless by superseding all the ordinary sanctions of evidence.

Assessment.

Previous to the regular revision, it was found necessary to make summary settlements in a few ruined and waste villages, such as Koonjolee in Sethee, Kouseearee in Sone, and Kutteeanee in Muhur; and in the jungly parts of the pergunnah, some permanent reductions of the land-tax were found necessary. Some of the Shōr mouzahs, too, as in Gungolee and Seera, were found paying extraordinarily small jummas; but much interference with these, was found inexpedient in this border country, whence the desertion of cultivators, many of them emigrants from Dotee, is so easy. You are yourself aware that nearly every case of increase was appealed, and generally with success to the Commissioner. Nevertheless, the Deputy Collector Umba Dutt on his first visit to Shōr after my summary settlements, was too forgetful of the fact that many of

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* NOTE.—The bad name of the Shör people for immorality and fraudulent dealings, is perpetuated in the popular songs, thus—

शोर हराम खोर ॥ बाप भडुए बेटी मै तोर ॥

सोर की नाली कत्पुर कौ माणो ॥ जोई जैठुली खसम जैंनानो ॥

Shör eats the bread of dishonor,
The fathers are Pandars,
The daughters remain in their fathers' house,*
The peck-measure of Shör,
Is the quart-measure of Kutpoor,
The wives of Shör are great characters;
The husbands are small and of no account.

* That is, away from their husbands.

the jummas were almost pepper-corn rents, and on the representation of interested parties was too inclined to allow reductions even from sums of Rs. 4 and Rs. 5 per village! On a review of his proceedings, I thought it proper, in many of these cases to restore the land revenue to its original amount.

The Bhoteas, and the troops both at Petoragurh and Lohoo ghât, purchase the grain, &c., of the zemindars, but the extremely low prices prevalent, show that the surplus produce is very considerable, and that the agriculturists of Shōr, prefer a sale at their own doors, to any distant market. A

Jhool-ghât suspension bridge.

fine iron suspension bridge over the Kalee, has been erected at Jhool-ghât at the joint expense of the British and Neipalese Governments, avowedly with a view to benefit the trade between Dotee and Kumaon. But since its completion more than 10 years since, the bridge has been chiefly used as a military outpost for each district, and the number of traders who use it, hardly form one-fourth of the passengers. The imports into Shōr and Kalee Kumaon from Dotee are principally ghee, honey, wax and *phoollel*, while the exports are chiefly cotton clothes, metal vessels and similar articles, which the British

Trade.

rule has rendered commoner and cheaper on this side of the river. These articles, however, are procurable by the Dotceáls in great plenty at their Bhabur mart of Looa Mundee opposite Birmdeo, which resembles our own marts in the same quarter, and which is crowded during the winter months. Except in the nia-abad lands, and in five mouzas where the hold of cultivating classes

Tenures.

on the soil is less fixed than ordinarily, and where the pudhans are found to possess a little more authority than their neighbours, the Deputy Collector has recorded all the tenures in Shōr as *bhyachara*. The division of the population into Brahmins, Rajpoots, Khussia-Rajpoots, and Doms or out-casts, is much the same as in other pergunnahs; the Khussias being in excess of the other tribes. A few Goorkhlee pensioners also have taken up their residence in Shōr. There are 18 thokedars in this

People.

pergunnah, of whom Dhunnee Muhur may be considered the head of the Furtial faction, and Tej Sing Muhur of the Mara faction. Tara Bhut an intelligent but intriguing brahmin of puttee Sethee is accused by all the Furtials of being the instigator of every quarrel and law-suit in the pergunnah. But this habit of giving bad names to particular influential individuals, especially successful mookhtears in Court, is universal in Kumaon, and it

is rarely found on investigation that the "*Mushoor Jhalee*"* is much worse than his neighbours. With much greater reason, Hurkishen Joshee, son of a late canoongoe and Moonsiff of Shōr, and excluded by Mr. Commissioner Traill, from his hereditary office, has formed the subject of numerous petitions from the inhabitants of Shōr and Gungolee, that he may be prohibited from ever visiting their villages; so helpless do these people consider themselves against the insinuating influence of an educated bad brahmin. Indeed the efficiency of Gungaram Joshee, the present canoongoe of the districts in question, was, in the course of the settlement, almost entirely nullified by the evil reputation of his uncle, who was supposed to share his counsels.

The fine mehal of Sutgurh in puttee Kuraët, fell almost waste before the settlement owing, the inhabitants said, to the tyranny and exactions of Tara Dutt, the tuhseel officer at Petoragurh. On this man's removal and punishment, the villagers still persisted in an attempt by resignations and desertions to force a reduction of their jumma (Rs. 73.) Eventually it was found necessary to separate the dakhlee mouzah of Khutteegaon, from Sutgurh on a jumma of Rs. 16 and to confer the pottah of the uslee mouzah, at Rs. 55, on a farmer, Sheo Sing Potela. In puttee Muhur, the farm of mouzah Chounda paying a jumma of Rs. 61, which had been held for three settlements by Bubee Khowas, an old Ghoorkha pensioner, was resigned by him and transferred to the thokedar Dhunnee Muhur with Rs. 57 jumma,—the village hisseldars, still declaring themselves unable and unwilling to enter into revenue engagements. None of the other moostajiree leases, 6 in number, affecting only Rs. 61 revenue, happen to require any particular remark.

10. Pergunnah Kalee Kumaon.

| Name. | *Former Jummas.* | | | | | | | Highest new Jumma. | Total appropriated Beegahs. | Total cultivated Beegahs. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1885 Sumbut. | 1889 Sumbut. | | | |
| Kalee Kumaon. | Rs. 8970 | 9706 | 10907 | 12186 | 14101 | 15321 | 15533 | 15667 | Khal 41501 | sa. 32079 |

Rs. 134, increase.

* Notorious rogue or "rascally attorney."

*Kalee Kumaon described.*

The pergunnah of Kalee Kumaon is extensive. It is bounded on the north by the Punnar and Surjoo rivers, on the south by the Bhabur, on the east by the Kalee river, and on the west by the ridge which runs down from Deo Dhoora to the Kotegarh branch of the Ludheea river. The remains of Chumpawut, the ancient capital of the Chund dynasty, are situated in the centre of the pergunnah in the fine upland valley of Char-Al, and in the fort at this place are now located the tehseeldaree and thanna of Kalee Kumaon,* in the jurisdiction of which, Askote, Shōr and Seera, are also included. The British Cantonments of Lohoo ghât are situated on the banks of the Lohoo river, five miles north of Chumpawut and 15 miles from the Neipalese frontier, and are now occupied by two companies of the local Battalion. The high road from Bhote and Shōr to the plains goes right through the pergunnah which is also connected with Almorah by a high road 52 miles in length. A few summary settlements were first made by myself in Kumaon, but as the whole burden of the real revision fell upon Umba Dutt, the Deputy Collector, I think it fair to that Officer to bring forward (here at least, if not elsewhere) the following *abstract* of his own remarks both on the pergunnah and the several puttees.

### Pergunnah Kalee Kumaon.

Description of Kalee Kumaon by Umba Dutt, Deputy Collector.

(After mentioning the above boundaries.) The extremities of the pergunnah on all four sides are jungly, but, the centre is well inhabited and the people are prosperous. The soil, however, in a great proportion is of the 2d or 3d quality, and there is a deficiency of the best kind. The climate is cold, and hence the productiveness is not great. Much surplus for sale does not exist. Nearly all the grain is required for home consumption. A great portion of the inhabitants repair, during the cold months, to the Bhabur. The chief trade there, is the sale of turmeric, which is plentifully grown in the warmer parts of Kalee Kumaon. In the middle of the pergunnah, waste culturable land is scarce. Therefore, the revenue has reached its proper limit. Where

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* Note.—The *whole* district takes its name from this place. Kumaon is said to be derived through Bhakha corruptions from Koorm Achul कूर्माचल "the Hill of the Tortoise." A mountain on the south-east of Chumpawut, where there is a shrine over the *pud* or supposed foot-mark of that Avatar of Vishnoo.

the waste lands are abundant (as near the Kalee and the Bhabur) where the climate is unfavorable to the spread of population. Towards Chowgurkha, however, (on the north-west) the cultivation has increased and is increasing. With respect to the revenue, it may be observed that, where the assamees were found to be too few, or where the land had been lost by floods and landslips, or where great complaints of over-assessment were raised, there, petty decreases of from Rs. 2 to 4, were granted.

Principal of his assessment.

In Pal Bilon puttee, the jumma of Deooree village, was Rs. 210. This amount was found to pinch the people, therefore Rs. 20, decrease, was allowed, and desertions ceased in consequence. At Khar Ghoor Kalee in puttee Tulla Des, a landslip carried away half the village lands, and therefore, Rs. 15 or half the jumma, were remitted. In puttee Besong the nia-abad mouzah of Ronj fell waste, and the jumma of Rs. 4, was excluded from the jummabundee. In this manner the total decrease became Rs. 198. On the other hand, Rs. 20 accrued from nia-abad leases; and where villages were found fully cultivated, where a marked increase of cultivation had taken place, where available hands existed for the work of extending the tillage to the boundary limits, and where it was proved that pudhans had been able to collect more than the fixed jumma, there small increases were made, the total amount being Rs. 312. Thus, after deducting the decrease, an actual increase to the revenue of Rs. 134, was secured by the settlement operations.

Increases and decreases of jumma.

## Putter Char-Al.

A few villages of Char-Al are high in the mountains, and a few in the forest, but the greater part are on a level. The cultivation is extensive and the climate excellent. The people sell their grain, ghee and milk at Lohoo-ghât and Chumpawut, severe frosts occur in the winter, and men and cattle are nearly all obliged to leave their homes and repair to the Bhabur. On this account the rubbee crops are neglected and poor. The four tribes of Turagee, Bora, Chowdree and Karkee are called *Boorha*, and their headmen, or special Boorhas, were in former days counted great men and held their lands rent-free in jageer. Up to 1873 Sumbut their homestead villages remained mal,

Description of Puttees by Umba Dutt.

Char-Al.

but they also were then placed in the Khalsa. The head Boorhas of each tribe were honored with booracharree, as well as thokedarree pottas; their brethren, though having no other means of livelihood, still from family pride are averse to personal labour in the fields, and to load-carrying, and many of them have become poor. In this puttee, the surrounding hills are fast coming under cultivation.* The *statements*, show the changes in the jummabundee effected by the settlement and their causes.

### Puttee Rigrooban.

Rigrooban. The villages of puttee Rigrooban, situated between Char-Al, and the Surjoo, are for the most part situated on high ridges and slopes. From the goodness of the climate, the inhabitants are well to do, though the course grains, mundooa, &c., are more plentiful than rice, wheat, and the like. In some places the jumma appears high with reference to the quantity of land; but there the profitable turmeric and ginger are grown. In some villages too, hill† paper is made and is a source of gain to the people.

### Putiee Tulla Des.

Tulla Des. This puttee extends between Char-Al and the Bhabur, and is intersected by the Ludheea river and bordered by the Kalee‡ many of the villages near the latter river, are inhabited by families related to the people of Dotee on the opposite side. Hence, although the heat and excessive jungle of the valley prevent much extension of cultivation, the emigration of discontented persons from the border mountains keeps up the requisite population, whose profits from the sale of their ginger and turmeric are considerable. One great inducement which brings over Dotcals to Tulla Des is the acknowledgment by the British

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* Note.—Chiefly of the kind called *ijjur*, that is periodical tillage in the jungle once in 4, 5, 7 or 12 years, called in Gurhwal, Keel and Kutoola. The spade and hoe are used, the plough seldom. The crops are all of the poorer grains, and oil seeds.
(Signed) J. H. Batten.

† Note.—Made from the fibres of the Set-Burooa or "Daphne Cannabina."
(Signed) J. H. Batten.

‡ Note.—The famous shrine of *Poonagirree*, much visited by pilgrims, is situated on a precipitous rock over the Kalee two miles above Birmdeo in this puttee. That part of the puttee which belongs to the Bhabur, has been fully reported on in the Bhabur Settlement Report.
(Signed) J. H. Batten.

Government of *hereditary* shares in occupied land, whereas, on the other side, the state considers the property in the soil as *entirely* its own. The upper villages in Tulla Des do not produce much surplus grain, but on account of their profits in trade, owing to their favorable position in regard to the turaee markets, the whole tract is famous in Kalee Kumaon for the comparative wealth of its inhabitants. Two causes, however depress the land revenue. The danger and uncertainty of agricultural pursuits in the hot and unhealthy tiger-jungles—and the facility of desertion across the border in case of the least pressure on the assamees.

Thus with Rs. 39 decrease, 41 increase, and Rs. 6 on account of nia-abad, the whole addition to the jumma has been only Rs. 8.

## Puttee Goom Des.

Goom Des.

This puttee and Rigrooban and Tulla Des, form one line along and above the Kalee. Three-fourths of the villages, some of them very fine ones, lie on the hills and slopes, and one-fourth of them in the Kalee valley. Most of the remarks for Tulla Des, apply also to Goom Des.

## Puttee Pal Bilon.

Pal Bilon.

Pal Bilon is west of Char-Al and Tulla Des, and extends to the Bhabur. A great part of the puttee is high and hilly, but not too much so for the growth of turmeric, whilst in the lower slopes and in the vallies, all the best grain crops are grown in addition to the turmeric. There is, however, very little surplus corn.* Most of the villages are prosperous, and Rs. 16 increase

* Note.—This remark is inserted by the Deputy Collector in every puttee, with a view, I *know*, to relieve the people from the burden of forced supplies to the Military at Lohoo-ghât, and to account according to the version given by the inhabitants, for the great difficulty that has always been experienced in feeding the Sepoys at the out-post in question. My own opinion is, that there is some truth in the assertion, that in Kalee Kumaon, grain, especially wheat, is not grown very *much* in excess of the wants of the inhabitants, but that *there is a surplus*: else how could the pergunnahs, too cold for ginger and turmeric, continue to pay their revenue in cash? I also think that Military interference with *prices* has mainly contributed to the dearth in the Lohoo-ghât bazar. At present the troops there are few in number and all coercion and interference have been put an end to.

(Signed) J. H. Batten.

has accrued on the whole jumma. The particular decrease of Rs. 20 in mouzah Deoorec has been mentioned in the *Perygunnah* remarks.

The present high road to the plains, kept up by Government, is on a bad line. The Ludheea river at Belkhet is too broad to be bridged, and constant accidents are occurring in consequence in the river. Higher up on the stream there are good fords and a spot fit for a bridge; and the route to *Sunneah* Mundee from Chumpawut is much more frequented by Kelaghât, Dhoora and Busteea than by Birmdeo, and is much shorter. It would be a great blessing to the inhabitants and also a benefit to Government and travellers, if the road were made this way.*

### Puttee Sibtee Gungol.

Sibtee Gungol.

This puttee is due west of Chumpawut towards the Ludheea, and is well inhabited and with a good climate. Quantities of spare arable land exist, and *ijjur* cultivation is frequent; rice and wheat are not very abundant, but in Kalee Kumaon the common mundooa crops are as profitable and sell as well as the finer products elsewhere. In this puttee on account of the increase of cultivation, a total increase of Rs. 31 (of which Rs. 4 are for nia-abad) resulted from the settlement.

### Puttee Sooee Bisong.

Sooee Bisong.

Sooee Bisong is near Lohoo-ghât, and produces very fine crops on its upland vallies. The people, however, are great *traders*, and and when the weather becomes cold, repair with their cattle to the plains. When they return, they bring back large quanti-

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* Note 1848.—In these remarks of the Deputy Collector, I quite concur. I brought the subject officially to the attention of the Executive Department 5 years ago, but there was no result.

(Signed) J. H. Batten.

Note 1849.—During the ensuing winter there is every probability of a bridge over the Lulleah and a new road to Sunneah being constructed.

(Signed) J. H. Batten.

ties of cloth for sale. The tract is small and the population large and not addicted to agricultural pursuits. Hence it is not uncommon for the people to buy their own food elsewhere, the produce not being sufficient even for themselves. The fort of Kootulgurh (Fort Hastings,) is in the midst of the puttee. In the time of the Chund Rajas, the people were nearly all sepoys and belonging to the five tribes *Mahra, Furtial, Deoo. Dek,* and *Kuraët,* with the *Boorhas* of Char-Al, as their sirdars. The inhabitants are famous for still retaining all their old hereditary pride and prejudices. They disliked the Goorkha rule and many left the country; but at an early period of the war, they joined Major Hearsey* and the British side. Even now the inhabitants of Kalee Kumaon are fond of wearing arms, and in the Bhabur, originally to guard against robbers and now in the pursuit of game, nearly every man is found carrying a matchlock. In case of necessity, these habits might be turned to account by Government. A decrease of Rs. 14, took place in the jumma, of which Rs. 4, belong to the waste mouzah of Rouj.

### Puttee Ussee Chalsee.

Ussee Chalsee.

This puttee forms the extreme west and north-west portion of the pergunnah and extends towards the ridge of Deo Dhoora and the valley of the Punnar. The villages are numerous and the inhabitants prosperous. On the high ranges, that highly useful plant, hemp† is grown. In the west part the soil in Ussee Chalsee is poor. Hence notwithstanding the numbers of cultivators and the extension of tillage, only Rs. 20 increase on the total jumma accrued by petty increments in a few villages, after deducting Rs. 20 decrease.

Additional remarks by Settlement Officer on farms, thokedars and tenures.

In addition to these observations of Umba Dutt, I may mention that, in the whole pergunnah of Kalee Kumaon, only two farming leases were found necessary, one on the death of an old and unsupported

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* Note.—And, be it said, allowed that officer to be surprised and taken prisoner.

(Signed) J. H. Batten.

† Note.—In many parts of Kumaon, hemp might be largely grown as in Gurhwal, but there exists a prejudice against its cultivation. The manufacturers of hempen cloth (Bungela) are *Kolee* outcasts. No castes, however, are above using the intoxicating drug, *Churrus,* derived from the inspissated juice of the leaves and flowers.

(Signed) J. H. Batten.

pudhan, in mouzah Kota, Ussee Chalsee; where a reduction of the jumma from Rs. 11 to 6 rupees induced the taking up the lease by Himmut Sing Sutwal; the other at mouzah Kotsarree Tumalreea in Goom Des, which on the death of Dola pudhan and the resignation of his son, was made over for Rs. 10, to Joohar Sing Boorha.

In all Kalee Kumaon there are 50 thokedarees, 14 belonging to the Boorha clan, and 36 to ordinary pudhans scattered through the country. In Soore Bisong, 44 villages are quite independent of any thokedar. Among the Boorha headmen, Puddee Turagee, Rugghonath Bora, and Jewut Sarkee are the principal representatives of the Mahra faction, and Rugghonath Turagee, Umur Sing Turagee, Dhurm Sing chowdree and Bishna Bora of the *Furtial* faction. The Boorha is not always the thokedar, and the Boorha-charee honor is often almost nominal. For instance, in mouzah Muntandi in puttee Usee Chalsee, jumma Rs. 53, the land is held in severalty by the resident coparcenary hissehdars (putteedars) and the revenue is paid through three elected village pudhans. The pudhan-charee dues are Rs. 3 cash per annum from the whole community, 1 rupee on each marriage of each hissehdar's daughter, the breast of every goat killed and 1 *beth* per annum, that is, one day's unpaid labor by all in the pudhan's fields; each hissehdar pays these dues to the particular pudhan of his own *thoke*, or division in the village. The thokedar is Seta Bunola. The pudhans pay him together Rs. 2 per annum, 1 rupee on the marriage of each of their daughters and one haunch of each goat killed by *each* pudhan. The *Boorha* is Puddee Turagee, and he takes in all from the village 1 rupee per annum. Sela-Khola near Chumpawut is the family village of the Kalee Kumaon Joshees, who afford a canoongoe to the pergunnah. They also possess 4 mouzahs in Ussee Chalsee, recorded by the Deputy Collector as zemindaree. The Government revenue in one of them, Umolee Doorgakot, is Rs. 65. Formerly its assamees paid miscellaneous dues. Turmeric, ginger, oil and even cloth, articles useful to the Brahmin proprietors at Almorah. At the present settlement, for all these contributions, Rs. 15 cash malikana was substituted, payable through the village pudhans, also Joshees.

Canoongoe's village.

In this mouzah (as in many other Brahminical mouzahs) the payment of thokedaree dues to the thokedar is not made.

## 11. Pergunnah Dhceanee-row.

| Name. | Former Jummas. 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1888 Sumbut. | 1889 Sumbut. | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rs. | | | | | | | | Khalsa. | |
| Dheeanee-row. | 4101 | 4320 | 4902 | 5156 | 5768 | 6017 | 6128 | 6212 | 9131 | 7783 |

Total Rs. 84 increase.

Dheeanee-row described.

Tullee Chobhynsee; the lower part of this pergunnah has been described in the Bhabur Settlement Report. The three hill puttees are upper or Mullee Chobhynsee, Mullee Row, and Tullee Row. The whole high land pergunnah forms the basin of the Ludheea river. It extends from the ridge of Deo Dhoora on the north, to the Bhabur on the south. Chobhynsee occupies the high ranges, which separating Dheeanee-row from Muhrooree and Chukhata, and the tributaries of the Gola river from those of the Ludheea, in fact connect the Gaghur chain with that of Beroo Choola and Deo Dhoora. In this puttee the chief wealth of the inhabitants consists in large herds of cattle, for which their mountains afford admirable pasture grounds and which they take down in the winter to the Bhabur. Some of the villages, such as Dindee and its dakhlee mouzahs, Mythee, &c., Mujealee, &c., are large and populous, but the cold climate is adverse to agriculture. *Hill* rice even is quite ungrown. The majority of the people accompany their influential pudhans, Chundree Bangullee and Buchee Bangullee, to their Bhabur possessions at Chorgullee and its neighbourhood, and are thus enabled to reap all the advantages both of the hills and the plains. The land revenue of upper Chobhynsee itself (now Rs. 949) has almost reached its proper limit, with reference to the character of the soil, and the occupation and separate payments of the people in the lower country. Mullee Row and Tullee Row, are both highly prosperous puttees, and the latter could well afford to yield a higher revenue than it does; but with reference to the constant additions to the jumma in past settlements all the

Chobhynsee.

increase that could now be taken, amounted to Rs. 66, distributed over the 41 separate leases, and reduced to Rs. 42 by the petty decreases. This puttee yields most abundant crops of rice and wheat, as well as of the coarser grains and turmeric; (the Bansmuttee rice of the Seera or irrigated land being very famous) but it is not favorably situated in regard to markets; Sunncea and Huldwannee in the turaee; and Almorah and Lohoo-ghât in the hills, being all distant. The establishment of a large intermediate hill Mundee at Joulasal, or some other point east of the Debouche of the Nadore (Deoha) river at Chorgulleea, would be highly advantageous to the Dheeanee-row puharrees and also perhaps to the Desees of Kilpoorce and Nanukmutta. The Seera lands at Chounda, and Koolleal, &c., which form so beautiful a tract on the banks of the Ludheea, belong chiefly to the three tribes of Bora, Muhta, and Kooleal, and their head men are accounted wealthy, though their two most influential members Peeta Bora and Seeona Muhta have died since the settlement was concluded. In Mullee Row, there is also much valley land as at Pytna, Soonkota, Kuchul Kote, &c., and the upland (Ooperaon) villages are also large and well cultivated. Mulla and Tulla, Okhul Doonga with their dakhillas (each mahal paying Rs. 225,) are especially prosperous. They belong to the Sumul family, of whose numerous pudhans *Jynta* thokedar and Kaloo pudhan are the most influential. The former has valuable possessions in the Bhabur at Luchmunkee mundee, &c. The Kairha Bora, and Deo tribes are also flourishing communities in Mullee Row. The jumma was increased by Rs. 35, in this puttee. The total demand of Rs. 3,090, may be considered fair. In the whole pergunnah only two *moostajiree* leases exist, and the revenue affected by them is but Rs. 14. There are iron mines in Dheeanee-row at Munglalekh, of which the ore is said to be the best in the province; certainly the iron made from it, is most esteemed by the plains traders. The revenue is included in the one lease of Rs. 2,274, for all Kumaon Proper. *Copper* ore is also found at Kemoo Khet on the east bank of the Ludhea river, but it has only recently been worked, and the individual, who discovered the small deposit, is at present allowed to hold the lease at Rs. 13 per annum. The tenure of two villages in Dheeanee-row, is recorded as approximating to zemindaree. Doolouje in Mullee Row belongs

Want of a near turaee market.

Valley lands in Tullee Row.

Mullee Row villages.

Tribes.

Farms.

Iron mines.

Tenure in Dheeanee-row.

to Kuloomunnee Pandeh, who after collecting the Government revenue of Rs. 18, receives malikana Rs. 3 cash and 1¼ maunds of grain, and the ordinary periodical presentations and services. Such is a hill zemindaree! yet many so-called zemindars in the plains are far poorer, dress less well, and live inhabitations, which the well lodged puharrees would consider wretched cowsheds.

12. Dhunneea Kote.

| Name. | Former Jummas. | | | | | | | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1550 Sumbut. | 1895 Sumbut. | 1899 Sumbut. | | | |
| Dhunneea Kote, | Rs. 2767 | 3603 | 4061 | 4165 | 4743 | 4738 | 4783 | 4839 | Khal. sa. 5511 | 5325 |

Rs. 56 increase.

*Dhunneea Kote described.*

We now leave the tuhseeldaree of Kalee Kumaon and again enter the pergunnahs attached to the Huzzoor tuhseel, which we left at Gungolee. Of these, Dhunneea Kote and Phulda Kote were entirely settled by myself in 1843, and Ramgurh, Kotah and Chukhata, in 1844 A. D.

The small district of *Dhunneea Kote* lies along the northern slopes of the west Gaghur, and on both banks of the Kosilla river, while the puttee from which it derives its name, occupies the basin of the tributary Khyrna. This was once a retired corner of the district; now it is one of the best known, owing to its proximity to the new sanatarium at Nainee Tal, the bazar at which place is fast superseding that of Almorah, as the market for the Dhunneea Kote produce. Some of the upper villages near the Gaghur are badly situated in regard to soil, one of these, Chorsa, at the head of the Khyrna valley, was found to be paying Rs. 93, and the few resident worn-out inhabitants declined to re-engage for the revenue, except at a decrease of Rs. 40. The thokedar Kishna Jullal offered Rs. 67. As the village had formerly paid Rs. 103, as the cleared arable lands were very extensive,

New market at Nainee Tal.

Particular settlements.

the climate excellent, and a market quite near, (it being easy for the people to pay a much larger jumma merely from the sale of milk, ghee and wood at Naince Tal), I thought it right to treat the temporary absence of confident and industrious assamees, as an accident, and I accordingly accepted the offer of Rajah Pertab Singh to *farm* the village at the old jumma. He has since let it in *kutkinnah* to the above named Kishna Jullal, and the cultivation is again nearly up to the old mark. The Brahmins of Boodla Kote, a village similarly situated, and with a much less favorable soil, complained that owing to their reputation for wealth, derived from their possessions in the Bhabur, they had been for a long time over-assessed. On enquiry I found that with reference to their payments elsewhere, and in comparison to their neighbours, they were paying much more than was fair for their hill village. I accordingly reduced the jumma from Rs. 151 to Rs. 131. If founded on strictly agricultural assets; their jumma ought to be much less, as that of their neighbours ought to be much more; but with the present deficiency of correct data on this point, and with the overwhelming preponderance of casual and miscellaneous capabilities taken into the estimate of hill resources, I thought it imprudent to make any greater change, and I allowed the large amount of population to remain as the main asset in Boodlakote.

Cultivation in the Bhabur by the Dhunneea Kote people.

In Kishna Jullal's own mouzah of Tulla Kote, one of the most prosperous estates in the province, and beautifully situated on a terrace overhanging the Kosilla valley, I raised the jumma from Rs. 525 to Rs. 550. The assessment is still light. This influential thokedar and his brethren, however, are daily extending their beneficial clearing operations in the Kaleedoongee Bhabur, and it would be highly undesirable to disturb their minds and reduce their resources by any fiscal proceedings at their hill homes founded on theoretical attempts to equalize the land tax. Other decreases and increases were made as circumstances demanded, after my acquiring a minute knowledge of the tract under settlement; and the result in puttee Dhunneea Kote is a total increase of Rs. 39. In Oncha Kote, a tract of 30 or 40 acres of the best tulaon or seera land, known by the name *Choke*, was proved to have been immemorially in the possession of 7 villages, but never to have been included in the recorded assessable area of any. I *might* have taken a separate farming lease for this tract, and so punished the dishonest concealment on the part of the several pudhans, but endless disputes and heart-burnings

Hill assessment.

would have been the consequence, and I thought better to leave possession and management as I found them, and in the estimation of decreases and increases of each village to add or *credit* a proportionate amount under the latter head for its share of the Choke Seera. The total addition to the jumma in puttee Oncha Kote is Rs. 21. In this puttee, the valuable mehal called Seer Bharree is farmed to Mootee Chukracet for Rs. 125 under an express condition that he is to relinquish it at any time, if required for tea cultivation. The tract was one of the Raj-Seeras or crown-lands of the province, and Mr. Commissioner Traill had ordered its sale by public auction. But the order remained unfulfilled, and I thought the present arrangement the best for the interests of Government.

Reservation of Seer Bharree for tea cultivation.

Puttee Semulkha suffered severely from the heavy floods of the Kosilla in 1840. Though the fields have partially recovered the deposition of gravel, and the loss of valuable soil, which then took place, a permanent injury to the valley lands may be considered to have occurred. It is well that only a decrease of Rs. 14 on the whole 8 mehals was found necessary.

Loss by diluvium in the Kosilla valley.

Down the river, the villages of Chowthan are large and flourishing, though few in number. The inhabitants in addition to their trading, and agricultural pursuits in the Bhabur, and their profitable employment along the Kotah road, as carriers of goods between Chilkeea and Almorah, also benefit by the pilgrim road from Budrinath passing through their country, which it enters at Ranecbagh. Thus, for some months of the year, they are enabled to dispose of their grain, ghee, &c. to foreign visitors at their own doors.

Carrying Trade.

The jumma of Chowthan was only increased by Rs. 10, and no particular remarks thereon are necessary.

The whole pergunnah is rich in an agricultural point of view, and its orchards of mangoes, plantains, oranges, &c., show the general mild temperature of the district. But the frosts in winter are extremely severe, and the people are glad both for the sake of pasturage and climate to repair to the Sunnee Bhabur.

The only two *moostajiree* leases have been mentioned. The bhyachara tenure prevails, but two zemindarees occur; one at Mul-

Farms and tenures.

lagaon in Ooncha Kote, the purchased estate of Mootee Chukraect, the other at Tungeeora in the same puttee, the property of Jaimull and Jeewa Muhra acquired by orders of Court since 1880 Sumbut. In the former, the zemindar takes as his share one-third of the produce in the Ooperaon, and half in the Tulaon lands. In the latter, the proprietors keep a large proportion of the land in their own hands in *Nijjote*, making their own arrangements with their several Sirthan assamees and Hâlees, and taking from the old khaëkur or occupant cultivators, besides quotas of the Government jumma, slight cash malikana, and the usual occasional nuzzurana.

Iron Mines.

The iron ores of Dhunneea Kote (chiefly red hœmatite) are found in numerous localities, the mines being all included in the one general lease of the district. With reference to the plenteousness of the deposits, abundance of fuel, and vicinity to the plains, these mines might become very valuable in case railroads should be formed in Northern India. As it is, they are so neglected that, our Executive Engineers sent to Calcutta for the iron of three suspension bridges erected in their immediate neighbourhood, and an attempt at home manufacture of the necessary metal was not even thought of. There are ten thokedars in Dhunneea Kote of whom *Kishna Jullal*, previously mentioned, is the only one, possessed of any great activity or intelligence. He is a fair specimen of a puharree headman both in his good and bad qualities, and in the openness, and perhaps roughness of his manners. Prem Nidhee, the maaffeedar of Lohalee, and other five estates in this pergunnah will be mentioned in his proper place.*

Bridges.

13. Phulda Kote.

| Name. | Former Jummas. | | | | | | | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1885 Sumbut. | 1889 Sumbut. | | | |
| Phulda Kote. | Rs. 6324 | 6524 | 7191 | 7475 | 7919 | 7889 | 8044 | 8042 | Khal 13169 | sa. 12540 |

Rs. 2 decrease.

* *Vide*—Maafees, paragraph 24.

*Phulda Kote described.*

This pergunnah commences on the east at the peak of Seahee Dehee, opposite Almorah, and thence occupies the southern slopes and base of the Jhoola Deoridge (or water-shed between the tributaries of the Ram Gunga and the Kosilla,) as far as Chowmou peak and Byna ghât. Westward of these, the range of mountains is included in Palee, but at puttee Kosean, there is a prolongation of the pergunnah along the banks of the river to Sethee, where it adjoins *Kotah*. This country was the especial scene of the successful military operations in Kumaon, which preceded the taking of Almorah in 1815. With the exception of a few places in *Kosean* there is no great extent of level or Scera land, some fine valley land along the Koonjgurra, which unites with the Kosilla at Bojain, was almost irreparably injured by the abovementioned flood of 1840. All the upper puttees are so much alike and are so intermingled that, especially after such a full report on the similar districts of Dhunneea Kote, it is quite superfluous to describe each separately, while Statement VI., can be examined, for particulars of the jummabundee. The Rs. 4, on account of waste recorded in puttee Kosean, belonged to a nia-abad lease of the last settlement, which was abandoned at this. The total decrease of Rs. 2 on the whole pergunnah, might have been avoided,* if any attempt had been made to form a general scheme and thence to deduct particulars. As it is, this item stands as a proof of the settlement being, as asserted, *strictly mouzahwar*, and, if its appearance is thought discreditable to the operations, the nia-abad leases issued since their conclusion, and hereafter to be reported on, will enable us to absorb the petty decrement in the next pergunnah statements.

*Diluvial losses.*

*Assessments.*

The villages are for the most part large, well-inhabited and thriving, but the soil in the upper parts is not very favorable for the production of the best grains. The Phulda Kotees, however, are great traffickers, and with their neighbours of Dhunneea Kote, almost monopolize the trade in borax, &c., between Bageswar and Chilkea, as also the cloth and sugar trade between Almorah and Casheepoor. The principal refining furnaces for borax at Chilkea itself, also belong to puharrees of Phulda Kote.

*Soil.*

*Traffic.*

* *Vide*—Remarks on this subject in pergunnah Seera, para. 8.

People of Phulda Kote.

The Pandés of Pandé Kota, &c., are a principal tribe in Mulla Dotee, unaddicted to mercantile and carrying pursuits, while they afford putwarrees, sepoys and chuprassees to Government. Jeewa Muhra of Tanda, and Dhurmanund Belwal of Seoon Tulla, are well known capitalists, the former, the great money-lender and litigant of the pergunnah; the latter, the lessee of the jungle farms in the turaee. Jeona Koomai of Selingee, Jeona Muhra of Toonakot, and Buchee Sone of Kuggear, are the remaining most influential members amongst the thokedars of Phulda Kote.

Disputes, tenures, thokedarees.

Disputes of various kinds were brought forward at the settlement. Those referring to the sub-division of pottahs, the separation of dakhilee mouzahs, the appointment of pudhans and the recording of the rights and possessions of the cultivators, were decided in the course of the operations. But the hissehdarree disputes between the different members of the dominant families, were nearly all left to the ordinary course of law in the Civil Court. The rate of thokedaree dues found to be generally prevalent, is ½ an anna or 6 pie per each rupee of the Government jumma, in addition to the usual fees on marriage, &c. In two villages, viz. Binkote and Hulsone, the tenure is not strictly bhyachara. The proprietary right in the former, is at present vested is three members of the Bisht tribe. The Government rent is Rs. 120 on 200 beesees; of these, 147 beesees are in the occupancy of the village khaëkurs holding in severalty, who pay Rs. 107, of the total revenue and the ordinary occasional nuzzurana, and offerings, but nothing more in cash or kind. The remaining 53 beesees, remain undivided in the hands of the hissehdars, or so-called zemindars, one of whom, Dhurmanund Bisht, is the lumburdar, and they equally divide the proceeds after paying Rs. 13, the portion of the Government jumma still remaining due. The khaëkurs made loud complaints against this arrangement, but, unfortunately for themselves, they were induced to set up claims to the proprietary right which were disproved by sunnuds and decrees, &c., and after investigation, the profits of the Bhists and the burden of the occupants were decided not to be excessive.

Resumed maafee.

Hulsone was a maafee village, resumed in 1835, after the last settlement; as none had a better claim, revenue engagements were taken from the maafeedars as proprietary hissehdars, viz. Mud-

dun Bullub Punt, Gunga Bullub Punt and Doorga Dutt. At the present revision, an increase of only Rs. 3, was laid upon the first jumma of Rs. 35, though putting aside considerations of the reduced means of the owners and only looking at the pergunnah rate, the jumma on the land will not eventually be unfair at double that sum. In the dakhlee or Seera lands, the hisseldars take ⅓rd of the produce from their assamees. In the Ooperaon lands, they collect Rs. 55, and they make themselves entirely responsible for the Government jumma and hold a joint pottah. A recourse to new farming leases, was not found any where necessary in Phulda Kotc.

14. Pergunnah Ramgurh.

| Name. | *Former Jummas.* | | | | | | | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1885 Sumbut. | 1890 Sumbut. | | | |
| Ram-gurh. | Rs. 1941 | 1946 | 2317 | 1969 | 1859 | 1886 | 1862 | 1864 | Khal 1517 | sa. 1302 |

Rs. 2 increase.

Ramgurh described.

The little pergunnah of Ramgurh lies between the Gaghur and Lohakote ranges, both uniting on the east at the great Moteswar peak, which is the source of the east Khyma. Thus the scene in many parts, is quite amphitheatrical. The well known glen of Ramgurh on the high road between the plains and Almorah, belongs to the three villages, Nackana, Borha Kote and Jooteea. The upper and notherly parts of the district belong to puttee Agur and only in one or two spots along the river bank below Soopee and Meearoe, is any tulaon land found. The villages of Agur, whence the inhabitants are called Agurees, belong to the tribe of *Sones*, whose especial avocation is, the working of the iron mines and preparing the ore, not only of the Lohakote ridge itself, but throughout the province. They are Soodras by caste, and will not labor at the *actual* work of *lohars* or *blacksmiths*. They are, also, employed in the Bhabur

The tribe of Agurees or miners.

and elsewhere as road-makers and excavators of water-courses (bildars) and during late years the Sones have become the principal contractors for all roads and buildings at Nainee Tal and have been found highly useful to the settlers at that sanatarium. The several villages, 20 uslee and 16 dakhlee, are all favorably situated in regard to climate, but the soil is not generally good. The Agurees remain at home from May till November, and, during the rest of the year, they and their families, are to be found at the several mines, some of the best of which are in Ramgurh itself. The main body, after sowing their wheat and barley, however, collect at Khetsanee in pergunnah Palee, where the mild climate and the cheap food, besides the plentiful ores, hold out great attractions. Viewed as a land tax or as "the state share of the produce" the jumma of puttee Agur has always been very high; for it certainly could not be paid out of the surplus proceeds of agriculture. The case of Ramgurh resembles that of the Bhote mehals, inasmuch as the inhabitants pay revenue village by village according to their general means and resources. In fact, as they must in some way or other contribute to the support of the state, they are taxed for the healthy air and secure position of their homesteads. As the terms on which the theekadars of the mines are obliged, in the *absence of competitors*, to engage the labor of the Sones, are highly favorable to the latter, it may also be considered that in their village tax, they also pay the revenue, which is lost to the state by their monopoly of the mines, I therefore, left the total jumma Rs. 792 as I found it. Similarly in puttee Ramgurh, mouzah Naekana is, with reference to the jumma paid, but poorly off for land. Its inhabitants, however, are Paturs and Naiks, the former, the dancing girls of Almorah and the latter, the race originally springing from that corrupt source, and afterwards by inter-marriages with other inferior tribes, becoming a separate tribe only occasionally recruited by births from Paturs. The daughters born to Naiks, however, themselves recruit the numbers of the frail sisterhood. The Naiks have, during the British rule, been the chief clearers of the Chukhata Bhabur, and as shewn in the report for that tract, their villages of Huldwanee, Mookanee, &c. are highly flourishing and still under-assessed. Under these circumstances I felt no scruple in maintaining the jumma of Naekana at its former amount, Rs. 105; more especially as, in the earlier settlements, the jumma had reached Rs. 140. The people of Borha Kote (Rs.

Remarks on anomalous *land* revenue in Ramgurh.

Peculiar races.

Naiks.

Cultivation of Bhabur by the people of Ramgurh.

215) and Jooteca (Rs. 250) also possess fine tracts of land in the Bhabur and pay highly, (but not perhaps too much so with reference to what has been above urged) for their mountain homes. Two doubtful cases are left in puttee Ramgurh, viz. those of Busgaon, &c., Rs. 171, and Pabree, &c. Rs. 51. Here the inhabitants have no well-known resources beyond their homes, except from their Brahminical profession, and their lands are for the most part poor and steep; yet the jummas, which I retained after full enquiries and receipt of farming offers, were the lowest they have had since 1877 Sumbut, when their quotas of revenue were 178 and 73 respectively. Two great putteedaree disputes in Jhootcea and Naekana, were settled by the election of four pudhans in the former and six pudhans in the latter in addition to Bhuggee thokedar and Puddee Naik. For this pergunnah generally, I may remark that, if at any time labor can be supplied to speculators in the Kumaon mines, on purely free-trade principles, and, if also, an assessment of the Bhabur should take place founded strictly on land measurements and estimates of produce, &c., then it may be found necessary entirely to remodel the fisc in this hill pergunnah, and to calculate a proper amount of land tax. The same necessity would occur at Milum, if customs duties were established in the Joohar pass.

Doubtful poor villages.

Disputes. Assessments in Ramgurh, perhaps unstable.

15. Mulla Chukhata and Mulla Kotah.

| Names. | *Former Jummas.* | | | | | | | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1885 Sumbut. | 1890 Sumbut. | | | |
| Mulla Chukhata and Mulla Kotah. | Rs. 1715 | 1625 | 1741 | 2024 | 2231 | 2527 | 2593 | 2620 | 2528 | 2620 |
| | 2183 | 2367 | 2436 | 1962 | 1986 | 2315 | 2317 | 2295 | 2591 | 2154 |
| | | | | | | | | Total Rs. 25in | | crease. |
| | | | | | | | | Rs. 22 decrease. | | |

These are the *hill* puttees belonging to pergunnahs Chukhata and Kotah, the account of which

Account of Chukhata.

formed a part of the Bhabur report. They immediately overhang the Bhabur, and, with the exception of the north-western extremity of Kotah, they may be generally stated to cover the southern or plainsward slope of the Gaghur range from the Golah river on the east to the Kosilla river on the west. The upper villages accordingly, partake of the ordinary mountain character, the lower of the climate and productiveness of the Bhabur. Chukhata said to be a Bhäka corruption for सिखात or, country of the seven lakes, may also be correctly described, as occupying the entire basin of the Golah river; for, the whole drainage of the district, finds its way into that river before it leaves the hills at Bhamouree.

Lakes.

The largest *lake*, Naince Tal, occupies the source of the Bulleah branch. The next in size, Mullooa Tal, forms part of the bed of the Golah itself, and was evidently produced by a landslip. Bheem Tal and Nowkoorchia lakes, on an intermediate table land, send forth each a small stream uniting to form an affluent of the Golah. The four smaller lakes and adjacent ponds, called by the natives Sat Tal, lie between Bheem Tal and the Bulleah, and contribute to the latter river. The central plateau near Bheem Tal, is rich in fine villages. The extremes of the pergunnah are more jungly and the part adjacent to the Bhabur, is sadly infested by tigers. On the whole,

People.

however, the inhabitants of Chukhata are a prospering race, and among them the Muhra and Sone Bisht families, who first ventured to push their possessions beyond the Baro-ke Rao pass into the Bhabur (carrying with them to their clearings the name of their hill pergunnah) are under the present secure, Government reaping the fruits of their enterprize, and are gradually increasing in wealth, retarded somewhat in the case of the Muhras by their family quarrels and divisions. Some of the best land in the high land valley alluded to, belongs to the Pandé and Punt Brahmins, who do not accompany the annual migration to the Bhabur. It is unfortunate that the tea nurseries have been principally planted in their lands under the pressure of authority, and that thus the zemindars have become accustomed to associate the tea experiment with present complaint and injury, instead of with visions of future wealth.

Unfortunate choice of Chukhata for the tea nurseries.

There are three principal thokedarees in Chukhata, held at present by Nur Sing, Bohra, Luchmun Sing and Kishun Sing, Muhra, and Khurk Sing and Deb Sing, Sone Bisht. They collect the

Thokedars.

ordinary dues from the several pudhans, whose villages are included in their pottahs; but in their own hissehdaree mouzahs, or where they have also the malgoozarship, such extra dues are withheld. The tenure in Chukhata, is bhyachara, but in mouzah Bijrole, non-proprietary assamees occupy all the land, except 5 beesees seer and 4 beesees huq-pudhanee, and pay ⅓rd of the produce to the five proprietary hissehdars of the Punt tribe. These with their pudhan Lutchmee Kant Punt, share the same equally among themselves. In the Muhra villages, the lands are actually divided among the hissehdars, but the richer members of the tribe let out their fields to sirthan and paëkasht cultivators, and also employ the labor of their own domestic hâlees. The revenue arrangements at the revision of settlement, resulted in Rs. 25 total increase to the jumma, of which Rs. 14 are due to nia-abad.

Tenures.

Assessment.

The Chukhata people present a contrast to their neighbours in Phulda Kote, in being singularly averse to the labor of carrying loads, however profitable. They themselves account for this feeling by saying that their agricultural toils involving, besides their puharree tillage, the sowing and reaping of a crop (and sometimes two) in the hot Bhabur, quite incapacitate them for physical exertions of the kind. The Kotah people in a less degree affect the same distaste. Under these circumstances, the voluntary coolies necessary for Nainee Tal and Kaleedoongee, are rarely, if ever, natives of the immediate neighbourhood.

Dislike of the inhabitants of Chukhata to cooly labor.

One little mouzah in Chukhata, viz., Jheolee, Rs. 7, on the Bullceah, was let in *farm*, to the thokedar Nur Sing, Bohra.

Farm in Chukhata.

There is nothing particular to describe in upper *Kotah*. The small village and fort of that name, with the ruined royal residence of Debeepoora adjacent, occupy the mouth of the Dubka pass, where the river enters the central plain of the Kotah Doon. The sources of the Dubka, the Bhola or Bhore, the Nihal, the Bahmunnee, and the Kukra rivers, are all situated in this pergunnah; while the Kosilla river passes through one portion on the *north* of the Gaghur range, before it enters the Bhabur-

Kotah described.

puttee at Chookum. To the lower and upper villages, the remarks for the similar parts of Chukhata apply, but in Kotah there is no central level tract like the beautiful valley of Bheem Tal. The main roads from Almora to Chilkeea and from Kaleedoongee to Nainee Tal, pass through this puttee, but no large villages are near the passes. The majority are scattered about the mountain forests without connection. The best and largest mehals, Jhulna, Bhagnee, Dola, &c. are situated between the heads of the Dubka and the Bahmunnee rivers, on the spurs from the great Budhan Dhoora peak of the Gaghur. There are also a cluster of good clearings, Bagär, Muhroree, &c., at the head of the Bhore between the Budhan —Benaik Pass and *Cheenar*, the well known monarch of the Nainee Tal mountains. Petty decreases of jumma to the extent of Rs. 36 were found expedient in the mouzahwar settlement, but after allowing for the petty increases and nia-abad, the total decrease was only Rs. 22.

Assessment.

Of the 55 pottahs, 5 are moostajiree. Dola, Rs. 84 the largest village let in farm, was transferred to Rajah Shooraj Sing of Casheepoor by the voluntary act of the pudhan and hisseldars. Khyrakee, Rs. 72, fell almost entirely waste from the want of sufficient hands, and on the resignation of the remaining shareholders, Jeet Sing Putwal and Nur Sing Bohnal engaged the village at the old jumma and it is being gradually restored. The other farming leases are for petty amounts. Ram Sing Bhelia, the enterprising pudhan of the Kaleedoongee clearings, and Kaloo Sone the well known zemindar of Rampoor in the Doon, and Jewa Koonketee, whose villages are situated near the Kosilla, are the three thokedars of Mulla Kotah.

Farms.

Thokedars.

Some trouble was experienced in preparing the record of rights and liabilities in Bhagnee and Julna and other villages, where Kaloo Sone had been accustomed to allow no authority but his own. However, the disputes ended in the election of village pudhans, the formation of revenue and rent rolls (phurd phaut) and the determination of all other necessary matters, here as elsewhere, much to the content of the several communities; and to the chagrin of their former master.

Disputes settled in Kotah.

## 16. Pergunnah Chowgurkha.

| Names. | Former Jummas. | | | | | | | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1872 Sumbut. | 1873 Sumbut. | 1874 Sumbut. | 1877 Sumbut. | 1880 Sumbut. | 1885 Sumbut. | 1890 Sumbut. | | | |
| Chow-gurkha. | Rs. 4118 | 4515 | 5123 | 6817 | 7714 | 7736 | 7884 | 8110 | Khal 20753 | su. 15883 |

Rs. 226 increase.

Chowgurkha described.

Chowgurkha is bounded on the north and east by the Surjoo, which river continues to divide it from Gungolee as far as the junction of the Punnar river. The latter and its tributaries drain all the southern portions of the pergunnah. On the west it approaches the capital, Almora, while the drainage in this direction by the Sowal river flows into the Kosilla. Thus in the centre of the tract on the Shemdeo ridge, or off-shoot of Binsur and Jagesur range, spots are frequent where affluent springs of the Ganges and the Gogra are within a few yards of each other. Puttees Khurhai and Reetagurh occupy the northern extremity in the direction of Bagesur, Rungor and Daron the eastern parts, while Salum forms the southern, and Lukhunpoor the western division.

The name of the pergunnah is derived from the four principal district-circles last mentioned. Salum and Lukhunpoor are highly cultivated and thickly inhabited, the tulaon or valley lands, especially in the former, being famous for their crops of the very best rice; the ooperaon or uplands being generally blest with an excellent soil, while hemp is grown in numerous places both high and low. In these puttees, notwithstanding the increases at the present settlement of Rs. 106 and Rs. 54 respectively, which the people themselves willingly agreed to pay, the assessment is still very moderate, but with our present knowledge it can hardly be called too low. Many good villages belong to Brahmins, and others are resumed maafees; and in these last the system of periodical increases was in

Assessments in Salum and Lukhunpoor.

Resumed maafees.

some measure abandoned by Mr. Commissioner Traill, in order to keep the old families affected by his resumptions, from falling into poverty and discontent. Among the Brahmin villages of Salum, Nega Sungrolee with its dakhlees (Rs. 146) belonging to Gungaram Pandé and his brethren is the largest. Of the Rajpoots, Mahendra Sing Bohra is the principal thokedar and pudhan, and his mehal of Neery (Rs. 187) is situated in the midst of plenty and population. There are six other thokedars in Salum, but none of any note. In Lukhunpoor, the Joshees of Digolee still retain their estate in maafee tenure. The largest Khalsa mehals are Khola, &c. Rs. 113, Banjtakha, &c. Rs. 80, Chamee Rs. 73, Soopee Rs. 64, and Chanee Rs. 65. They chiefly belong to Bisht, Bunola and Deooree Rajpoots. The Tewarree and Pandé Brahmins are numerous in Lukhunpoor. The high road from Almora to Petoragurh passes through this puttee, crossing the Sowal river at Soopee Chanee. One small nia-abad pottah of Rs. 3, at Therola was abandoned at this settlement, and hence the entry under the head of waste in Statement No. VI.

Large Khalsa villages.

Tribes.

Puttee Daroon is noted for the great temples of Jageswur, Deendeswur, &c. at its northern extremity. Twenty one villages are held on *goont* or religiously assigned rent-free grant for the support of these establishments. The noble scenery of the Jageswur range is well known to travellers, and the glen in which the temples are situated is beautified by the largest grove of Deodar trees* now remaining in central Kumaon. The puttee itself is on the whole poor and inferior, and the portion near the Surjoo is very jungly,—Daroon and Rungoor are alike, and both resemble in many respects the neighbouring district of Gungolee. Some of the villages, such as Dhunneea Rs. 85, (belonging to the well known Dhunneea Joshees,) Doogra Rs. 106, Gyrar Tulla Rs. 57, &c. &c. are large and well inhabited, but for the most part no great amount of prosperity is visible. In both puttees together, the number of separate leases (malgoozaree pottahs) is 87, comprising within them 62 dakhlee mouzahs and *lugga* lands; as the whole tract yields Rs. 1,909, the average jumma per pottah is not quite Rs. 22. In Rungoor Rs. 13 under the head of decrease are due to five petty mouzahs which fell waste from the abandonment of their owners. On the

Daroon Puttee.

Jageswur temple and range.

Villages of Daroon and Rungoor generally poor.

Assessment.

* Note.—"Pinus Deodara."

whole puttee, however, there is an increase in the jumma of Rs. 23. The Deputy Collector reports that both puttees have reached their proper limit of taxation, as the high ranges on their north and west, and the low jungly valley on their east, subject these villages to loss, and injury from the visits of wild beasts and deer. Reetagurh occupies the deep glen of the Jaigunneea stream at the back of the Binsur and Jagesur mountains. The lower part towards the Surjoo is covered with the most exuberant vegetation of a tropical type, the resort of tigers, and is extremely hot and unhealthy. The upper part at Kurela, Pasdeo and Chowna-bilouree, where the Bagesur road crosses the valley, is more salubrious in climate, and presents a fine spread of cultivation. Here, therefore, we are not surprised to find some influential members of the Jhijjar tribe of Joshees in possession of the land.

Jungly state of Reetagurh.

Chowna-bilouree belongs to Rotela Rajpoots, whose ancestors were connected with the Chundela or Royal race in Kumaon. The mehal known as Nowgaon with its dakhlee lands, comprises a large portion of Reetagurh, some of which is admirably adapted for the production of rice, sugar cane, turmeric, &c. The increase of the jungle, in some measure owing to the bad government during the Goorkha rule, has rendered this valley, less and less habitable. Notwithstanding the immense extent of his culturable lands, in square miles, both high and low, and a recorded amount of cultivation at 822 beesees, the zemindar Dowlut Sing Bisht was with the greatest difficulty induced to allow his revenue payments for the 20 years' settlement to be enhanced from Rs. 70 to Rs. 100, an amount which he could with ease defray from the sale of the oranges for which Reetagurh is famous. His relative and enemy Roop Sing Bisht made an offer of Rs. 164; and under all the circumstances I thought Rs. 100 for seven miles of hill and dale a not immoderate amount to be taken from the pudhan. However, on his urgent appeal to yourself as Commissioner, an increase of Rs. 15, was declared to be sufficient, and Rs. 85 is the revised jumma of Nowgaon. It is unfortunate that the temper of Dowlut Sing Bisht (a foujdar of the Goorkha times and otherwise mixed up with the later Native history of Kumaon) is that of a soured and proud old man, and that the character of his sons is not altogether unexceptionable, while the hatred and jealousy on the part of his own relative abovenamed shows no signs of abatement; and the Joshees and other neighbours, who consider him an upstart,

Zemindaree of Nowgaon, &c.

Its assessment.

are too happy to aid in fanning the flame of discontent. Thus there is, I fear, little present hope of any improvement in Reetagurh by moral instrumentality even if any great change for the better were not forbidden by the climate and situation.

Prospects of Reetagurh.

Very great difficulty was experienced in preparing the Settlement records (phurd phaut, ikrarnamah, &c.) of this estate. They have only now been completed after great personal trouble by myself. Eleven *goont* mouzahs in Reetagurh, chiefly situated in the upper part, are excluded from the Khalsa area, and belong to the Jagesur and Deendasur temples. Puttee Khurhai, probably so called from the large deposits of steatite there found, occupies the high ridge and its northerly slopes which intervene between Reetagurh and the Surjoo at Bagesur. Large forests of pinus longifolia (cheer) here characterize the scenery, and the copper mines and limestone and soapstone quarries throw its agricultural features into the shade. Three-fourths of the villages are found paying jummas of the smallest amount, Rs. 9 per pottah, being the average. Nevertheless a strenuous attempt was made at the Settlement to reduce the total demand even below the former sum Rs. 308. This was vigorously met by the Deputy Collector, and he succeeded in finally raising the jumma to Rs. 341 with the introduction of only one farming lease, viz. that of mouzah Khurhai itself (Rs. 15) let to an Almora Bunneea, Purma Sah. Although it is true that the villages are all surrounded by forest, and that those having the best seera lands near the Surjoo, are in insalubrious situations where only paëkhast cultivation can be introduced, still the people of Khurhai possess a market for their produce close to their homes at Bagesur, and amongst the Bhotias, who in the winter pasture their cattle and sheep in their forests; and they have no grounds whatever to complain under their present fiscal burden. Their two thokedars, Bhowan Sing, and Kullean Sing Negee are men of no weight in the country, and the best thing for this puttee would be the introduction of a few more capitalists from Almora, and Bagesur, like Purma Sah, abovementioned, and like Kurree Sah and Damoo Sah the (nia-abad) proprietors of Billone,—Seera, &c. (Rs. 40) on the banks of the Surjoo.

Goont lands in Reetagurh.

*Khurhai described.*

Mines and quarries.

Assessment.

Thokedars in Khurhai.

Capitalists required in Khurhai.

Copper mines.

The copper mines in Khurhai at present yield Rs. 15 to the state, and they are now being abandoned by their lessees who are only the Negee thokedars just named. From the report of Captain Drummond on the quality and extent of the ores, it would appear that capital and skill would render the Khurhai mines valuable and important. The nature of the soil—(steatitic and talcose mud with springs) in which the cupriferous deposits occur, render the efforts at working the mines of the neighbouring zemindars a constantly recurring and nugatory labour, and the results the most puny and contemptible. The ores

Iron ores in Chowgurkha.

of iron are plentiful in various parts of Chowgurkha, and are worked at thirteen different spots, at one of which (Jhirratolee in Daroon) magnetic ore is found.

Goitre.

Goitre prevails to a great extent in Chowgurkha, especially in Rungoor and Daroon, with its usual occasional accompaniment of cretinism.

Thokedars and farmers in all Chowgurkha.

In all Chowgurkha there are 29 thokedars, and of the numerous pudhans belonging to the 292 malgoozarree pottahs, 13 hold their mehals at the present Settlement on a moostajiree or farming lease.

17. Pergunnah Baramundel.

| Name. | *Former Jummas.* | | | | | | | Highest new Jumma. | Total appropriated Beesees. | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1572 Sumvut. | 1573 Sumbut. | 1574 Sumbut. | 1577 Sumbut. | 1580 Sumbut. | 1585 Sumbut. | 1589 Sumbut. | | | |
| Bara-mundel. | Rs. 9300 | 10219 | 11194 | 15041 | 17311 | 17381 | 17877 | 18172 | Khal 19026 | sa. 17732 |

Rs. 295 increase.

Baramundel described.

Baramundel, as its name implies, comprises twelve puttees, or sub-divisions, and from its situation in the centre of the district, and from its containing the capital, may be considered the

heart of the province. The little puttee of Khaspurja surrounds Almora. Oocheeoor and Beesodh lie to the east of the town, and border on Chowgurkha; Bora-ke Rao, Khyra-ke Rao, and Mulla and Tulla Seeondra extend to the north and north-west; while Mulla and Tulla Teckhoon, Reoonee, Dewascoon, and Uttagoolee form the western divisions of the pergunnah. Baramundel occupies the whole upper basin of the Cosilla above the great turn of that river to the westward below Almora. In Khyra-ke Rao and Uttagoolee, which alone are west of this basin, are found the sources and main upper course of the Gugās river, a large tributary of the Ramgunga; and these are separated from the Kosilla region by the Bhutkote, Airee Deo, Reoonee, and Seeahee range east, and by the Jhoola Deo on the south.

Tract highly cultivated and populous.

The whole tract is richly cultivated, and thickly peopled, with the exception of the highest mountains, and these are by no means difficult of access, nor, do they present any stupendous features in the land-scape. Almora itself is situated on a low flat ridge emanating from a main spur of Binsur, and the site of the capital appears to have been selected not only on account of its being centrical, but also for its inexhaustible stone and slate quarries, and the number of its springs.

Almora.

Climate and scenery of Baramundel.

The climate of Baramundel is for the most part very fair; the height of the villages above the sea varying from 6,000 feet to 3,500 feet; the main valleys however rarely falling to the latter level. Perhaps in no part of the hills can any thing more beautiful be seen than the valley of the Kosilla in Bora-ke Rao, especially near Someswur. The mixture of the natural scenery of wood and water; the care-displaying fertility of innumerable fields, and the sprinkled human habitations remarkable for their pretty architecture, make up a picture which it would be difficult to equal in any part of Asia. The cheerfulness and abundance, too, visible in the neighbourhood of Almora itself and Huwulbagh are well known, and make up for the absence of grander natural features. It is hardly an exaggeration to say that on the north-west face of the Almora hill from ridge to base there is not a yard of land uncultivated.

Prosperity of the country.

It is pleasing to reflect that much of this plenty is the fruit of peace and protection the gifts of the British Government, and that, in all human probability, a very contrary spectacle would have now met the eye if Goorkhalee rule had continued at Almora to the present time. The cereal grains form the chief productions of the soil, and in Bora-ke Rao, Khyra-ke Rao and Uttagoolee, sugar-cane, cotton and linseed are also frequently seen. The two former, however, are (as elsewhere mentioned) not grown as profitable staples, but for home-use; nor, is there any manufacture of saleable *goorh*, &c. Throughout the whole pergunnah, but especially in Mulla Seeondra, the fruit of the hill pomegranate trees (dharim) is a most plentiful and valued production, the extracted juice being sold in the bazar as a fine acid, and the outside *rind* taken in large quantities to the Terrai Mundees under the name of *naspal* as an important article in the dyeing and tanning trade. Walnuts, oranges, lemons, and plaintains, also, are very abundant. This orchard wealth is daily increasing, whereas, under the late Government, from the mere wantonness of the Goorkha soldiers in cutting down garden wood, the villages were becoming more and more denuded of fruit trees.

Products.

Orchard.

The Statement No. VI. shows the detail of the present revenue assessment in regard to the total changes made. In all the puttees, the mouzahwar settlements resulted in a total increase. In none is there any record of waste on the one hand, or nia-abad on the other.

Assessment in Baramundel.

Only 14 mouzahs were leased to non-proprietary farmers, of which the revenue engaged for amounts to Rs. 323. The total jummabundee of Rs. 18,172, shows an increase in the pergunnah of Rs. 295. The Deputy Collector viewing the statement of assessable area as accurate, records his opinion that Baramundel has reached its maximum of land tax, the correctness of which opinion his successors may *perhaps* be inclined to doubt after regular surveys shall have taken place. The removal of the Line Corps from Almora has undoubtedly lessened the demand for agricultural produce, and there, at present, appears no prospect of enhanced consumption within the pergunnah. In this state of affairs we ought perhaps to congratulate ourselves that the

Farms.

Opinions on the land revenue.

existing amount of revenue is paid in *cash* so easily, and check any rising feeling of cavil, at what has been sometimes called the Lilliputian results of Kumaonese fiscal operations.

18. Palee Puchaon.

| Name. | *Former Jummas.* | | | | | | | Highest new Jumma. | Total approprieted Beesees | Total cultivated Beesees. |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1572 Sumbut. | 1573 Sumbut. | 1574 Sumbut. | 1577 Sumbut. | 1850 Sumbut. | 1855 Sumbut. | 1859 Sumbut. | | | |
| Palee Puchaon. | Rs. 20902 | 20911 | 25593 | 31246 | 32597 | 32639 | 33139 | 33799 | Khal 30593 | ss. 27828 |

Rs. 660 increase.

Palee described.

To the greater part of Palee Puchaon, the description just given of Baramundel applies. This large pergunnah is the most westerly of Kumaon Proper, and its puttees of Mulla Chokote and Sult border on Gurhwal, and this last tract also overhangs the Bhabur; on the east Mulla Dwara adjoins Baramundel; on the south Silore and Kuklasone meet Phulda Kote; and the central part is occupied by Geewar, Tulla Chokote, Tulla Dwara and Nya. The two broad vallies through which the Ramgunga and its main branch, the Bino, take their course, meeting at Boodha Kedar, and the fine lateral glens of Khutsarree, Nagadh, Kotlar, Garceon, Deghat, &c., form a remarkable feature in Palee, and to a traveller coming from the west suggest the idea that he is leaving the mountains altogether. Not less surprising is the aspect of many of the smaller ridges of the hills themselves, especially in Mulla and Tulla Dwara, covered from base to summit with villages and terrace-fields, and separated from each other by a succession of highly cultivated table lands and vallies, both small and large. Of these last the course of the Gugās river and its affluents presents favorable examples. Of the former Dwara Hâth and its neighbourhood is a grand and well known illustration.

Fine valley of the Ramgunga.

Highly cultivated hills and table lands, &c.

The tributary Nyr from the west also reaches the Ramgunga through a fertile and populous country, but less flat than the tracts above named.

Khutsarree* in Geewar owes its redemption from waste and a fatal climate to quite recent times; the zeal and industry of the principal pudhan, the late Theproo Negee, and his cultivators having been fostered and encouraged by Mr. Commissioner Traill. It immediately borders on the Gurhwal puttee of Lobha, the fort of that name overhanging the frontier line. The iron mines are the most extensive and productive in the province.† The pilgrim road from the northern shrines here enters the pergunnah and leaves it again at the points where the narrow ridges of Butronje-kanh and Kat-ke Rao form the only barrier which separates the waters of the Ramgunga and Kosilla. The name of the pergunnah is derived from the petty town of Palee which is situated on a low spur of the Nythāna ridge above the Ramgunga, and which was formerly the residence of a Ghoorkhalee Foujdar; and, in the earlier part of our rule, of a British tuhseeldar.

Iron mines.

Roads.

Name.

The least continuously-inhabited and cleared part of Palee is to be found in puttee Sulut at the south-west corner of the division; but *there* the ginger, turmeric, and capsicum cultivation is very profitable, and the remunerative market of Chilkea is within a day's march. The high portions of Mulla Chokote adjacent to Joonia Garh, &c., are also less fertile and more jungly than the more central districts. *There,* too, the fine climate and pasturage compensate for the deficiencies of soil, and some of the largest and best villages of the district are found in the Chokote highlands. Indeed the finest tulaon lands are the most precarious, owing to their liability to floods, such as those of 1840, which at Tamadhone, Bikiake-Syn, Silore, and other places, committed great injury to the arable soil, and would have seriously affect-

Observations on the several parts in regard to products, pasturage, &c. &c.

Pasturage tracts in Chokote.

Floods and diluvial losses in the best valley lands.

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* Note.—"The Valley of Crime" formerly a royal *Seera* and only resorted to by Criminals fleeing to this place as to a "City of Refuge," and allowed pardon on their tilling the soil of the Crown-lands.

† Note.—There is a small copper mine (also in puttee Geewar) recently opened,—Jumma Rs. 35.

ed the revenue, if the existing payments had been at all accurately proportioned to the quality and quantity of land. It appears from the Deputy Collector's remarks on his re-adjustments of jumma in Palee Puchaon, that in some few places he allowed a slight decrease in the Government demand on account of diluvium (durrea-boord), but that in general the loss to the village communities under this head was compounded for by the *pretermitting of increases*. Twenty moostajiree durkhasts in Palee, affecting a revenue of Rs. 852, were accepted; none of these were owing to resignations of proprietors on account of high jumma. Most of the pottahs were transferred by mutual agreement, or were retained in the absence of hisschdarree claimants. In the whole pergunnah an addition to the jumma of 2 per cent. Rs. 660 (the remainder after deducting Rs. 91, the total of all the petty decrements) occurred, and Umba Dutt takes particular care to state that, in the *open assemblies* which surrounded him at the time of settlement, the feeling of the people, with reference to the constant past *quinquennial* increases of Mr. Traill, preponderated in favor of a moderately enhanced jumma for 20 years, and that he might have produced a still better Revenue Roll, if he had not been checked by fear of disapproval, quite as much as by suspicions of possible imprudence. He points out puttee Sulut as full of capabilities for extension of cultivation and inhabitancies. He also brings forward the instance of *Lakhora* or the high forest district attached to the Juspoor estate in Chokote, as likely to present in a few years, a wide display of new villages, whereas hitherto on account of border warfare in native times, boundary disputes in our own, and the fear of periodical new assessments, the attempts at clearing the forests in that direction had been few, ill-directed, and isolated. Nevertheless, in these two instances at the northern and southern extremes of the pergunnah, the Deputy Collector has, I think, almost exhausted his record of future capabilities. I am myself of opinion that although Palee Puchaon more resembles a plain than a hill pergunnah, that district has already sufficiently paid for the reputation of superiority; and, it may be, has borne a burden which, if equalization had been possible of attainment, ought to have been more generally distributed. After all, in a mountain pergunnah, where nearly every village has been cultivated to the utmost, where the population is increasing without many outlets for

Farming leases.

Assessment in Palee.

Opinions of Native Deputy Collector.

Opinions of Settlement Officer on the land revenue in Palee.

its surplus numbers, where the most productive soil is most precariously situated, whence the markets for produce can only be reached by personal human labor without any artificial means of transport, and, finally, where the wages of labor earned at Nainee Tal and elsewhere, or of service by sepoys and chuprassees, are considered by the heads of villages as far more certain assets than the prices of produce, Rs. 33,799, is a large amount to be yielded *year after year*, and its regular realization in *hard cash* of the Company's coinage has sometimes struck me with astonishment, not entirely without misgivings. I cannot help thinking that the abolition of the Kumaon Local Battalion and any sudden reduction in the establishment of Mujkooree chuprassees at Almora, would increase the number of dustuks necessary in Palee to an extent that would alarm not only the peshkar of the huzoor tuhseel and his putwarees, but the late* Deputy Collector himself. Be that as it may, with the present fiscal result of the Palee operations the Government may well be content, and the absence of appeals from the settlement and of subsequent current balances other than the results of procrastination, extravagance and quarrels, may be taken as a proof that the people acknowledge the fairness of their taxation.

Opinions of Settlement Officer still further explained.

19. It would swell this report, already too large, to an inordinate size, if in pergunnahs Baramundel and Palee I should attempt the minute illustrations given of men and affairs in the preceding pergunnahs. For those, as least known, as most especially puharree, and as involving short yet complete descriptions, I have not rejected even trifling details. I have also taken care in the several divisions of my subject to make incidental allusions to nearly every matter of interest affecting the province generally, and to mingle with the local history, instances and examples illustrative of general customs. In these districts last past under review, I have therefore, confined myself to a geographical account of the country, and to topics connected with the revenue. Our successors in the province will require no written English reports to make them rapidly acquainted with the people of Baramundel and Palee. Three-fourths of the litigation in the Court belongs to these pergunnahs, and but a short possession of the judicial chair and the smallest experience of its respon-

General observations on the settlement and the disputes brought forward.

Litigation in Central Kumaon.

* Note 1849.—Now Sudder Ameen of Sreenuggur.

sibilities, will bring any Kumaon Civil Officer into contact, not only with the thokedars and pudhans, but with a great portion of the agricultural inhabitants of all ranks.

Disputes at time of Settlement.

Such being the case, too, with ourselves at the present time, a large proportion of the disputes which elsewhere were disposed of at the settlement camp, were in these pergunnahs left to the *arbitrium* of the Civil Courts, and my diligent and intelligent assistant Umba Dutt, was obliged to content himself for the most part with the decision of only those matters, the clearing up of which was absolutely necessary for the leasing of estates to responsible parties,—the determination of revenue liabilities,—and the exemption of the cultivating classes from uncertain demands; in short the creation of what is called the *phurd phant*, that is the best attainable separate village-record in the place of—nothing but a durkhast and a pottah.

Settlement decisions useful to the Civil Courts.

These decisions were greatly aided by the copies of decrees and orders already in the hands of the contending parties, and by a prudential avoidance of *all* interference, constantly enjoined by me, wherever real and not very recent possession of one party, was proved. A most valuable assistance has been given to the Civil Courts by the settlement operations. It is notorious that in Civil suits half the case is over when the "point at issue" is known. Indeed, from the highest judicial tribunal in the country, constant instructions have been issued to the subordinate Courts to make the establishment of *this* point the first preliminary object of all proceedings. *Now* in Kumaon, I am happy to say, it has become quite an established rule for parties to preface all suits concerning rights and liabilities in land, with the presentation of the copy of some order passed by the settlement officer, declaring that the particular matter in dispute had been left for the Courts to decide, and shewing what points were to be considered as proved and determined data.

In the concluding paragraphs those subjects will be discussed which appear to require more particular elucidation, and the illustrations will nearly all be drawn from the two pergunnahs, the detailed account of which has been omitted. In the meanwhile the general result of the whole fiscal operations under report, and of the miscellaneous proceedings connected therewith, is given below in the two following Statements.

Two General Statements for the whole district.

## Revenue Statement.

## No. 1.

| District. | No. of Khalsa pergunnahs exclusive of Bhabur. | Former Jummas, Land Revenue. | | | | | | | Total highest revised, new and confirmed Jumma 1848. | Total appropriated Khalsa Bee-sees. | Total cultivated Khalsa Bee-sees. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 17 | Sumbut Years. | | | | | | | | | |
| | | 1872 | 1873 | 1874 | 1877 | 1880 | 1885 | 1889 1890 | | | |
| Kumaon Proper. | No. of Puttees 76 | 82,979 | 89,568 | 99,199 | 1,08,858 | 1,19,989 | 1,23,164 | 1,25,584 | Rupees 1,27,112 | 2,27,123 | 1,72,912 |

Total increase Rs. 1528.

No. 2.

*Miscellaneous Statement of the Settlement Proceedings conducted by the Settlement Officer and Deputy Collector, from* 1841-42 *to* 1845-46.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 376 | 4755 | 3350 | 516 | 38 | 314 | 1521 | 67 | 677 | 260 | 1437 | 277 | 23 | 103 | 115 | 151 | 140 |
| No. of Thiokedars confirmed by the Settlement. | Total number of Pudhans appointed under the Settlement. | No. of separate Mehals leased at the Settlement. | No. of newly separated Pottahs granted at the Settlement included in Heading 3. | No. of cases connected with Thokedaree Pottahs. | No. of declations connected with Thokedaree Dues. | No. of declations of disputes connected with the appointment of Pudhans. | No. of declations connected with the remuneration of Pudhans. | No. of declations connected with the separation of dakhlee from ulee Mouzahs. | No. of decisions concerning proportional quotas of Government Revenue. | No. of declations of claims of parties to be recorded as Hisseh dars or Proprietors. | No. of decisions of claims of parties to be recorded as Khaikhurs or old Occupants. | No. of declations in cases against Pudhans for concealing names of Hisseh dars or Assamees. | No. of decisions of claims of parties for Malikana. | No. of decisions concerning Nia-abad disputes. | No. of decisions concerning Boundary disputes. | No. of cases connected with Burdasht levy of Coolies, Supplies, &c. |

Tenures prevalent in Hill village communities.

20. In paragraph 24 of the Gurhwal Settlement Report, which being in print can easily be consulted, the description of the Hill tenures by the late Mr. Traill is fully copied. I would respectfully refer on the present occasion to that Extract, as embodying my own opinions on the same subject and as being equally applicable to Kumaon Proper. In attempting to comply with my instructions, founded on Section 4 of the "Directions for Settlement Officers promulgated under the authority of the Hon'ble the Lieutenant Governor North Western Provinces in September 1844," the Deputy Collector Umba Dutt (to whom on account of my own urgent judicial and general duties, the carrying out of the settlement in Kumaon Proper in a great measure devolved) fell into frequent mistakes. I soon became convinced that the introduction of the terms used in paragraph 86 and following paragraphs of the valuable Circular in question would only lead to doubt and confusion; and that the preparation in accordance to those terms, viz., "zemindaree, putteedaree and bhyachara" of a threefold list of tenures, instead of being useful might be actually mischievous. It is also quite *unnecessary* for the Kumaon Civil Courts. In all the co-parcenary estates, the joint responsibility of all the proprietors for the payment of the Government demand is thoroughly undisputed and undoubted, whether the person or persons holding the malgoozaree pottah enjoy that distinction by election or by prescriptive right. Even in village communities where in addition to the pottahdar and proprietors holding the land in severalty, some portion is occupied by old occupant cultivators to whom the former deny the nominal right in the soil; these last will, if called upon by the proper authorities, pay up without cavil any deficient quotas of revenue, the only claim to irresponsibility being the proof of previous payment through their own nominal superior, or directly to the malgoozar. The term moostajiree or farming leases mentioned in each of the preceding paragraphs, is, as a general rule, applied to those mouzahs, where this state and feeling of responsibility do not exist among the cultivators, and where the person engaging with Government is considered solely responsible. In many cases the *farmer* is so called, because notwithstanding a continued possession of the pottah for some time, he can prove no acquired hereditary or prescriptive right in the soil. *Here* as Government is the only claimant opposed to him, he may be considered as really owning both the lease-hold and free-

Revenue responsibility not doubtful in Kumaon.

Explanation of moostajiree or farming leases.

hold. In other cases, however, the acquisition of the lease is notoriously recent and temporary. *There*, the villagers themselves, though unable or unwilling to take upon them any direct revenue engagement, are bound to submit to his terms in regard to their respective quotas of revenue payment, if they fully occupy the land; or, failing to do so, they must resign their rights by a "*ladâwa*" in order to make room for paying tenants; or, where this necessity does not fully exist, they must permit the malgoozar to make his own arrangements for the undivided (unbánta) lands, and for such portions of the divided lands as they do not *beneficially* occupy. Having explained the character of a moostajir, not unfrequently also called theekadar, I refer to the Glossary of Hill terms in my Appendix for a more full explanation of the peculiarities of tenure among the Kumaon village communities, as well as for the interpretation of names of things and persons used in this Report.

21. Comparing the *hill terms* with the definitions of *tenures* contained in the "Circular Directions" alluded to in the last paragraph, we may class the different holdings in Kumaon as follows.

Classification of tenures.

First. "*Pure Putteedaree.*"—All hissehdaree mouzahs in which the bánt or division of the lands has actually been made, in *regard to the whole community*, among the Thâtwân proprietors, each rath (clan) or Mao (family) holding its own lands either in severalty by the rules of hereditary Bhai-bánt, or un-*bánta*, pending a division among themselves; and each paying its quota of Government revenue through a pudhan.

Second. "*Imperfect or mixed Putteedaree.*"—Those hissehdaree mouzahs in which the land is held, in regard to the whole community, both in hissel-bánt and in *Sunjayuthee*; the pudhan having the first right to the proceeds of the common land, until the Government revenue has all been collected.

Third. "*Co-parcenary Zemindaree.*"—Hissehdaree mouzahs in which the whole land belongs to the hissehdars in common, but of which the proceeds in cash or kind, after paying the Government revenue, are divided among the proprietors according to the hereditary share of each.

Fourth. "*Simple Zemindaree.*"—Mouzahs or parts of mouzahs possessed in absolute proprietary right by a single Thât-

wân, the thât being derived from a sunnud, from the first nia-abad pottah, from purchase of crown lands, or from public or private purchases and forfeitures, which have absorbed all other claimants.

Disputes in pure Putteedaree estates.

These tenures are here placed in order according to their proportional numbers in the district. The *first* class is unmeasurably the largest. In mouzahs belonging thereto the disputes which arise are chiefly external, that is, concerning boundaries, with their neighbours, and concerning land belonging to other mouzahs included within their own limits, or to their own land included within foreign limits. Permanent transfers and exchanges of such *Tokes** were occasionally attempted with success at the settlement, much to the benefit of the people, but puharree pride and spite ("zidd") too often opposed such an arrangement.

In this class of estates the *internal* disputes generally have reference to the election of the pudhan, and to the *family* quarrels of the several hissehdars.

Disputes in mixed Putteedaree villages.

In the *second* class, where the existence of undivided land is owing to the long absenteeism, or minority, or idiotcy, or poverty of some hisschdar, or to a hisseh falling vacant by a family becoming *nâth* or extinct, or to the apathy of the villagers, there is always a tendency to the self-aggrandizement of the pudhan, and finally to the absorption of some portion of the punjazuttee land, into his own share. When sued on this account, a clever pudhan generally contrives to produce a long bill for expenses *(lagut)* incurred by him in cultivating the land, or for losses *(toot)* incurred by him through his responsibility for the government jumma, his profits *(goonjaish)* per contra in the absence of village-accountants, being concealed and not admitting of easy proof. Where the *common land* owes its existence to its distance from the homestead, its being a valuable plot of Seera or irrigated land difficult to divide,—or to paëkhast cultivation,—*there*, want of honesty or bad management, or refusal to produce accounts on the part of the pudhan, often lead to his loss of the appointment and the elec-

Tendency of Pudhans in such villages to appropriate the common land.

* Tokes—are the different local divisions in each village, named in the measurement books.

tion of a better representative. These cases were brought to light by the settlement wherever the people were at all intelligent or careful of their own interests. In co-parcenary zemindarees, the mouzahs are generally managed by one of the oldest assamees under the name of *ghur pudhan* who in remuneration for his trouble is allowed to hold part of his land rent-free, and is exempted from personal services, &c. *(cooly godám.)* These mouzahs are not very numerous and chiefly belong in Chowgurkha and Baramundel to Joshees and other principal Brahmins, the descendants of jagheerdars (maafeedars.) In the villages near the capital, instances of all these classes of tenure can be found in one mehal owing to some of the thokes or internal subdivisions having fallen into the hands of bunneeah mortgagees, auction purchasers, brahmin grantees and their heirs, &c., while some have remained in the hands of the original community; mouzahs Sitolee, Naekhola, Mutela, Rylkote, Bukh, &c. afford examples of this kind.

Co-parcenary zemindarees.

Mixed tenures near the capital and elsewhere.

Again amongst the great Seeancharee families of Palee Puchaon we find the hisseldars of the whole mehal jointly responsible through their pudhans for the government revenue, but the several mouzahs which comprise the estate of which the Seeana is the nominal head, shewing in their internal arrangements instances of every kind of tenure. Thus amongst the Bishts of Timlee in Tulla Chokote (of which Muddun Sing Seeana is the head, and Ruttun Sing Soobadar a principal pudhan) it is still a matter of dispute in the Civil Court, what mouzahs of the four *raths* shall be held in severalty;—what mouzahs shall be left in the hands of the assamees with a view to sharing the common profits;—and, in what mouzahs an actual distribution of assamees rather than of lands shall take place; while the claims of Ruttun Sing the monied-man and mortgagee or purchaser of all procurable lands within the mehal, add greatly to the confusion. With the means and time at our disposal, it was found impossible to decide all these matters at the period of settlement. All that could be done was by a temporary phurdphant to secure the cultivators from double collections, and to fix the principal revenue liabilities.

The Timlee estate in Palee.

22. In Baramundel, mouzah Bansoolee Seera, Rs. 232, and Eera Seera—Rs. 170, are instances of simple zemindaree estates obtained by purchase of crown lands. In the former, the owner Toola-

Instances of tenures.

Pure zemindaree.

ram Sah (the Almora treasurer) collects from his assamees Rs. 199 in *sirthee;* and 320 maunds of grain in *koot;* besides fees on all marriages, the annual "wulug" at the ghee sunkrant in Sawun, &c. He keeps 11 beesees seer in his own hands. The area of the estate is 135 beesees, all irrigated tulaon. He paid

An instance of purchased crown lands.

Rs. 1,156, purchase money for the mehal which was sold by public auction in 1829 A. D., (1885 Sumbut.) In Palee Puchaon, putte Geewar, mouzah Dhondmuhavia, &c., (Rs. 471), is a zemindaree by private purchase. The original Thâtwâns of the mehal were of the Muhra tribe, who fell into revenue balances, and were obliged to make over their "*thât*" by *laddwa* to Bhowan Sing and Goman Sing—Uswal, from

An instance of private purchase.

whom Laljee, the father of the present owner Motee Chukrait, obtained the villages through the forfeiture of a mortgage. At present, the zemindar collects altogether Rs. 515 rent and the customary dues, but has no recorded share of the produce. As the total area is 507 beesees, the profit to the owner is not likely ever much to exceed the present amount of Rs. 74. This accounts for the small sum Rs. 1,200, for which the Uswals gave up the property, and proves that Mr. Commissioner Traill treated the sovereignty of Government in the soil as any thing but a fiction in this mehal. The present jumma only equals the average demand of 5 settlements; but, with such a burden on the estate, the zemindar can hardly be considered, except with reference to the exclusion of all the claimants, as better than manager or farmer on the part of Government. The estate lies in the richest part of the Geewar valley. In mouzah Sowal, puttee Oochceoor, pergunnah Baramundel, we have an instance of a zemindaree derived

An instance of resumed jagheer.

from a resumed jagheer. The maafee of Ramkishen Joshee was resumed in 1876 St. As the terms of the original grant shewed that the *thât* was included in the *jagheer*, the settlement was made with the maafeedar; and his heir Radakishen is sole proprietor of the mouzah. The Government jumma is Rs. 25 on 70 beesees. The assamees pay ⅓rd of all produce to the zemindar, and he has also 1 beesee seer.

Very few instances are found in Kumaon of the Thâtwân being other than the maafeedar, nor, has it ever been thought necessary or proper in this province on the occasion of resumption or lapse of a maafee, to

Maafeedar generally the proprietor and settled with, for the Revenue on the part of Government.

disturb possession and *search for claimants* to the pottah, on the theoretical principle that the maafeedar only represented the Government in the village, and ought therefore, to be considered as the mere recipient of the Government rights, alienated in his favor. In regard to the nia-abad tenures throughout the district it is only necessary to observe that the rights of parties other than the original conqueror of the soil, or what is not infrequent, the first taker up of abandoned leases, are never recognized, except where it is thoroughly proved that the first holder of the pottah admitted any one to a proprietary share in order to ensure aid in his operations and lessen his own revenue responsibilities. The proof of such share is either a *likhut* or written agreement between the parties, or indubitable documentary evidence in the books of measurement and settlement, and by receipts of tuhseel officers that the claimant has regularly paid a quota of the Government demand, as *bonâ fide* revenue and not as private rent. An instance of mingled tenure occurs in mehal Juspoor, puttee Tulla Chokote; the malgoozaree pottah of which, comprising 1 uslee and 19 dakhlee mouzahs at Rs. 688 jumma is vested, with the thokedaree also, in Ruttun Sing Rajbar. In the uslee village, Juspoor, all the members of the Rajbar family are Thâtwân hissehdars. In all the dakhlees, Ruttun Sing is sole zemindar, owing to their being nia-abad and other causes which invested his father Kullean Sing with that character, to the exclusion of his less influential brethren. Of co-parcenary zemindarees, mouzah Nyal Jhoola (a resumed maafee) in puttee Bora-ke Rao, pergunnah Baramundel affords a very fair specimen. The Government jumma is Rs. 62. The two hissehdars Poorkotun Punt and Teekaram Punt possess 8 beesees seer, of which they give 1 beesee rent-free to their ghur pudhan Nur Dev. The cultivating community, 5 Khaëkurs and 24 Sirthans, pay collectively the Rs. 62 Government demand, and 40 maunds in all for both harvests, but each according to his possessions and engagements, and the hissehdars divide the profits equally, as well as share in the dues, fees, service, and other advantages. In mouzah Bujel in Baramundel (Rs. 63), the co-parcenary hissehdars and pudhans Bishen Narain Joshee and Hur Narain Joshee receive 259 maunds of grain per annum in koot (besides sâgpât, wulug, &c.,) and themselves arrange for the Government revenue. In mehal Ullai, puttee Lukhunpoor, pergunnah Chowgurkha, the Government jumma is Rs. 31. The proceeds of the estate to the five or six heirs of the original maafeedar Ruttun puttee

Nia-abad tenures.

Instance of mixed tenure.

Instances of co-parcenary zemindaree.

Joshee are only Rs. 24 cash, 12½ maunds of grain, and the customary dues and service, including fuel, these last the most valuable to Joshee *amlah* proprietors, and (with occasional grumblings on the part of some republican assamee) for the most part not unwillingly bestowed. From mouzah Sulla also in Lukhunpoor puttee, this same family derive the means of paying the Government revenue by collecting Rs. 45 in cash, 20 maunds in grain per annum, and 20 loads of wood for fuel per mensem; and for all land newly taken up in *ijjur* cultivation they charge 2 nalees of grain per plough. Luckily for themselves, the joint hisseldars of this mouzah have not yet quarrelled among themselves, and can therefore, make the common stock go farther than if it were parcelled out in petty lots. Close to the station from which I am writing (Nainee Tal) I find an example of a mixed bhyachara holding. In mouzah Bilooakanh in Chukhata the jumma is Rs. 52. The appropriated malgoozaree area is 72 beesees. The hisseldars Nur Sing pudhan, &c., divide 30 beesees in severalty between them, paying their shares of the Government demand thereon; while 32 beesees are cultivated by the Khaëkurs, who pay nothing beyond their own proportionate quotas of the jumma and marriage fees to the pudhan. *He* also holds 2 beesees, huq-pudhanee. The remaining 8 beesees of measured culturable waste, and the waste tract included within the boundaries, are at the disposal of the malgoozar, the same who claimed Nainee Tal in zemindaree right.

Instances of mixed bhyachara tenure.

Bilooakauh, &c.

In this case the Khaëkurs are called *sunjayuthee assamees* because they assist to make up the revenue for which the hisseldars are responsible, and because in case of any of their land becoming vacant by default of heirs, abandonment, &c., it would belong in common to the hisseldars. In the same neighbourhood we have the mehal of Muhragaon, notorious for its intestine disputes. This consists of one uslee and 7 dakhlee mouzahs for which the government demand is Rs. 250. The pudhans are two brothers, Luchum Sing and Kishen Sing Muhra; their tenure of the dakhlee mouzahs would be zemindaree, if there was any thing to posses except the responsibility for the Government revenue. The tightness of their circumstances in the hills has drawn them to the Bhabur, where they have become rich and influential.

Muhragaon, &c.

The uslee mouzah is the homestead of the tribe, who there divide 37 beesees in severalty among themselves, and are responsible for Rs. 37 jumma. The arrangement of the liabilities shown by the settlement record is as follows.

*Jummabundee Statement of Muhragaon, &c.*

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| Name of Mouzah. | Total Nikasee. | Total cultivated Beesees. | Collections from His sehdars. | Collections from Khaukurs. | Collections in Sirthee. | Net Profit. | Government demand. | Remarks by Settlement Officer. |
| | *Rs. A. P.* | *Bs. Nls.* | *Rs. A. P.* | *Rs. A. P.* | *Rs. A. P.* | | | |
| Government Jumma Rs. 250. | | | | | | | | |
| Muhragaon, .. .. .. .. | 214 9 3 | 169 14 | 37 0 0 | 149 0 0 | 28 9 10 From Government on account of Tea lands. | 59 9 3 | 155 | The two pudhans are also thokedars. In the former capacity they have separated 1 beesee of land in huq-pudhannee *for the name of the thing*. In the latter capacity their brethren give them nothing. From the assamees they take "*wulug*," *sigpât*, *beth* and marriage fees. |
| Dondeea, .. .. .. .. .. | | | | | | | | |
| Kunneea, .. .. .. .. .. | | | | | | | | |
| Hursen, .. .. .. .. .. | 97 7 9 | 52 0 | 6 14 0 | 59 2 0 | 31 11 9 as above | 37 11 9 | 60 | |
| Juntooal, .. .. .. .. .. | 18 0 0 | 32 0 | [illegible] 0 0 | 18 0 0 | 0 0 0 | 2 0 0 | 16 | |
| Choughan-Pata, .. .. .. .. | 4 8 0 | 8 0 | 2 0 0 | 2 8 0 | 0 0 0 | 0 8 0 | 4 | |
| Mohree Dogura, .. .. .. .. | 8 0 0 | 12 0 | 0 0 0 | 0 0 0 | 8 0 0 | 2 0 0 | 6 | |
| Golkee Alee, .. .. .. .. | 9 0 0 | 11 0 | 9 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 9 | |
| Total, .. | 351 9 0 | 284 14 | 54 14 0 | 228 10 0 | 68 5 7 | 101 13 0 | 250 | |

Returning to Palee Puchaon, we select the following specimen of village tenure.

Umearee-Chumearee, &c.

Mouzah Umearee-Chumearee—beesees 55. The number of hissehdars (all Pandé Brahmins) is 14. The whole land is divided in severalty among them, and they are severally responsible for the quotas of the Government demand, amounting in the whole to Rs. 57. Of the hissehdars, 5 pay through Kishna Pandé pudhan and 7 through Hurkishen Pandé pudhan, both pudhans being also hissehdars, and receiving no remuneration from their coparcenary brethren. Such is the hissehdaree phant.

Specimen of assameewar phant.

The abstract *assameewar* phant of this mouzah is in this wise, for that part of the land, 8 beesees, which is not in *nijjote* of the hissehdars.

| Numbers. | Name of Hissehdar. | No. of Assamees. | No. of Beesees. | Government demand. | Amount of Sirthee. | Total Collections. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | | Bs. Nls | | | | |
| 1 | Tara Puttee and Dhurmanund, .. .. .. | 5 | 1 0 | 1 3 3 | 1 8 10 | 2 12 1 | The actual number of assamees is 13, but the same man cultivates land for each hissehdar, and in the actual phant his payments per share averaging less than 1 rupee are all recorded. |
| 2 | Bandeo and Sreekishn Pandé, | 5 | 0 18 | 1 2 3 | 1 7 10 | 2 10 1 | |
| 3 | Omaputtee Pandé, .. .. | 3 | 0 11 | 0 11 0 | 0 12 6 | 1 7 6 | |
| 4 | Dhurmanund and Narain Pandé. .. .. .. | 2 | 0 2 | 0 2 9 | 0 4 1 | 0 6 10 | |
| 5 | Kishna Pandé, .. .. | 1 | 0 9 | 0 6 0 | 0 6 0 | 0 12 0 | |
| 6 | Kishna and Dhuneeram Pandé by purchase, .. .. | 7 | 2 17 | 4 14 10 | 7 1 0 | 11 15 10 | |
| 7 | Kumlaputtee Pandé,.. .. | 2 | 0 4 | 0 4 3 | 0 7 1 | 0 11 4 | |
| 8 | Hurkishn Pandé, .. .. | 3 | 0 14 | 0 12 9 | 1 0 7 | 1 13 4 | |
| 9 | Muheaur Pandé, .. .. | 3 | 0 6 | 0 6 4 | 0 9 0 | 0 15 4 | |
| 10 | Jai Pandé, .. .. .. | 3 | 0 4 | 0 4 4 | 0 5 1 | 0 9 5 | |
| 11 | Ram Kishn & Ramchunder, | 3 | 0 5 | 0 4 10 | 0 6 7 | 0 11 5 | |
| 12 | Munnoruth and Hurree, .. | 2 | 0 4 | 0 3 10 | 0 5 7 | 0 9 5 | |
| 13 | Hurkishn Pandé, .. .. | 3 | 0 6 | 0 6 9 | 0 12 7 | 1 3 4 | |
| | Total, .. | 42 | 8 0 | 11 3 2 | 15 6 9 | 26 9 11 | |

The hissehdaree dues from the assamees are 1 rupee on each marriage of their daughters, one haunch of every goat killed, and a wulug of *dhai* and *gabah* (leaf of edible arum,) in Sawun. From that portion of their hisseh which came to them by purchase and which is cultivated by one assamee, Kishna Pandé and Dhunneeram Pandé, also derive one load of grain at each harvest and 4 annas *teeka* at the Dusserah.

Phurd phants in general a new creation in Kumaon.

In this place I take the opportunity of mentioning that the assameewar phant throughout the district is an entire creation of my own as Settlement Officer. In Mr. Traill's time on the occasion of my urgent dissension concerning the distribution of the *revenue* burden arising, a measurement was ordered to be made of possession, ("kubzawar paimaish,") and according to the statement furnished by the local putwarree or canoongoe, as the case might be, there was drawn up *in the Sudder Office* the proper comparative roll of payments, of which a copy was given respectively to the pudhan and disputant party. Sometimes these statements were hisschwar, as well as a kubzawar, but all had reference to the *Government demand* and not to the general rental of the estates. We have not yet quite overcome the difficulty of procuring true rent rolls, in addition to the revenue rolls. But the fault of concealing the real status of the tenantry brings with it its own punishment in case of a dispute arising, as it effectually shuts the door of the summary suit Court against those guilty of it, and before they can remedy the evil, subjects the offenders to disgrace and risk of fine by their necessity to confess before the revenue authorities the wilful falsity of their records. In Gurhwal the concealment of hissehdars even to the extent of a whole *Mao* in order to hide capabilities, when perpetrated by the pudhan, and to evade "cooly-godâm" and other liabilities, when permitted by the hissehdars themselves, has been discovered in cases since the settlement, and generally remedied. But, in other cases the actual loss and absorption of the concealed share has been, it is well known, the consequence where the distance of the Court, the dread of litigation and its consequences; and the ignorance and poverty of the people, have conjoined to assist the fraud of the headmen. The Kumaon settlement had the advantage of following that of Gurhwal, and both officers and people could benefit by the examples in the earlier operations, which had become discussed and notorious. No fear of extra *bardaish* will now induce a Kumaonee peasant to abstain from suing the concealers of his name, possessions and liabilities, for even the minutest fractions of his rights.

Concealment of hissehdars and assamees in the phurd phants.

Effects thereof to those attempting it especially in Gurhwal.

Kumaonees more alive to their own real interests.

Instances of mixed putteedaree tenure and pure putteedaree.

The large village of *Masee* (Rs. 221) on the high road, between Almora and Sreenuggur in puttee Geewar affords a very good illustration of a mixed putteedaree

tenure. Of simple bhyachara tenures every puttee presents numerous instances, none perhaps better than the well known village of Kuttearee (Rs. 130), the main suburb of Almora. But, there is no space left for further minute details; I, therefore, conclude this chapter of examples with the following account of mehal Bhursoolee in Tulla Chokoté, pergunnah Palee Puchaon.

Bhursoolee, &c.

There are one uslee and 21 dakhlee mouzahs. The mouzahwaree area of all collectively is recorded at 704 estimated (nuzzur undazee) beesees, of which only 40 are placed under the head of "culturable waste." The pudhans are four in number, viz., Shere Sing *Seeana*, and his brother Goman Sing, and Mahendar Sing *Seeana*, and his brother Mohun Sing, of the Rawut tribe of Rajpoots. These are also the sole Thâtwân hisselidars. They reserve 41 beesees, dispersed throughout the mouzahs, as rent-free, huq-pudhanee and seer. The remaining land is divided among numerous Khaëkurs, from whom by quotas, the *whole* Government demand is collected. From these also, the *Seeanas* collect one rupee per family, once in every three years, one pice per family every Dusserah, the breast and one leg of every goat killed, one seer of ghee, besides dhai and gabah per family as *wulug* at the ghee sunkrait in Sawun, and as *beth* they take two ploughings at the rubbee and two at the khurreef harvests for the seer land, from every assamee. These are called "Seeancharee dustoor" and supersede all other thokedaree dues. At present, the two younger pudhans share every thing with their brothers. In case of a dispute arising they are entitled to call for a division of the villages according to hereditary right; to obviate the inconveniences of which, (entailing also a separation of the thokedaree dues from the hisselidaree dues now all united in the *Seeancharree* receipts,) it would be better to include all four names in the thokedaree as well as in the pudhancharree pottah.

Seeancharee dues.

Finally, from the entire settlement records, I gather that the number of mouzahs in the pergunnahs last described in which the tenure is zemindaree or approximates thereto, is 43 in Chowgurkha, 21 in Baramundel, and 97 in Palee, or one-ninth of the whole 1305 mehals.

Number of zemindaree tenures in Palee Puchaon, Baramundel and Chowgurkha.

There are four Seeana families represented by the two Rawuts abovenamed at Bhursoolee; by Muddun Sing and Sobhun Sing Bisht at Tim-

Seeana families in Palee.

lee; by Teg Sing Munral at Khairgaon, and Narain Sing Munral at Tamadhone. These two last are fast being ruined by debts and extravagance.

List of principal thokedars in Palee and Baramuudel.

In Baramundel there are 35 thokedars and in Palee 112, of whom the following are well known principal men; mentioned by name because those of the smaller pergunnahs have been so distinguished.

| *Name of Puttee.* | *Name of Thokedar.* | *Name of principal Village.* |
|---|---|---|
| | BARAMUNDEL. | |
| Bora-ke Rao, .. | Sobhun Sing Bohra, .. | Phullea, &c. |
| | Nathoo Bohra, .. .. | |
| | Tilla Bhynsora, .. .. .. | Bhynsore. |
| Khyra-ke Rao, .. | An Sing Bohra, .. .. | Nowlakote. |
| | Jewa Bohra, .. .. .. | |
| | Gujai Sing Kairha, .. .. | Bint. |
| | Mohun Sing do., .. .. .. | Buthore. |
| Uttagoolee, .. | Teg Sing, .. .. .. .. | Doogora. |
| | Gooja Bhundaree, .. .. .. | Bundaree. |
| | Buchee Airara, .. .. .. | Mutela. |
| Tulla Secondra, .. | Bhowan Sing, .. .. .. | Muhut. |
| | Nur Sing, .. .. .. .. | Pakra. |
| Mulla Secondra, .. | Muddun Sing, .. .. .. | Busolee. |
| | Dhurmdutt, .. .. .. .. | Lohna. |
| | Lutchmee Bullub Pandé, .. | Patia. |
| Mulla Tikoon, .. | Heem Sing Bohra, .. .. | Chounda. |
| | Gopee Chilwal, .. .. .. | Punkote. |
| Reoonee, .. .... | Dowlut Singh, .. .. .. | Reoonee. |
| Dooar Seon, .. .. | Lutchee Moolia, .. .. .. | Dinda. |
| Khas Purja, .... | Puddee Lutwal, .. .. .. | Lât. |
| Beesoodh, .. | Heera Koomatia, .. .. .. | Koomatee. |
| | Jewa, .. .. .. .. .. | Ooneona. |
| Oocheeoor, .. .. | Shaibaz Negee, .. .. .. | Seerarh. |
| | Muddun Sing, .. .. .. | Phuphna. |
| | PALEE. | |
| Mulla Dwara, .. | Sheeor Sing, .. .. .. .. | Merai. |
| | Bijey Sing, .. .. .. .. | Sulna. |
| Tulla Dwara, .. | Dhurm Sing Bisht, .. .. | Eera. |
| | Kishn Sing Negee, .. .. | Pythanee. |
| Silor, .. .. | Jeit Sing Rotela, .. .. .. | Tepola. |
| | Puddum Sing Khatee, .. .. | Sangoora. |
| | Khurk Sing Negee, .. .. | Kotharh. |

| *Name of Puttee.* | *Name of Thokedar.* | *Name of principal Village.* |
|---|---|---|
| Geewar, .. .. | Lutchum Sing Kutait, .. .. | Keera. |
| | Ujub Sing Negee, .. .. .. | Kutsarree. |
| | Munnoruth Maseal, .. .. | Masee. |
| | Moteeram Chukrait, .. .. | Dhond Mahra. |
| Mulla Chokote, .. | Seroop Sing Rawut, .. .. | Uphone. |
| | Himmut Sing Kunonia,.. .. | Utteegaon. |
| Tulla Chokote, .. | Ruttun Sing Rajbar, .. .. | Juspoor. |
| | Heera Sing Bisht, .. .. | Pythana. |
| | Kumul Sing Rawut, .. .. | Cheeanee. |
| Kaklaseon, .. .. | Hurruk Sing Gosaen, .. .. | Hurnolee. |
| Sulut, .. .. | Jeet Sing Munral, .. .. | Syn Manoor. |
| | Bhowan Sing Rawut, .. .. | Mulharree. |
| | Kullean Sing Bohra, .. .. | Bonolee. |
| | Bishna Sone, .. .. .. .. | Bhone. |
| | Mehur Sing, .. .. .. .. | Sokuttee. |
| | Seroop Sing Rawut, .. .. | Punnakote. |
| Nya,.. .. .. | Gunputtee, .. .. .. .. | Nynwal Palee. |
| | Hurruk Sing,.. .. .. : | Timla. |
| | Puddum Sing, .. .. .. | Nowla. |
| | Narain Sing, .. .. .. .. | Jaindul. |

Ordinary thokedaree fees and dues.

The majority of the thokedars in *these* pergunnahs are only entitled by law to the fees allowed by Mr. Traill, viz. one rupee per each marriage of the pudhans' daughters, and a leg of each goat killed by pudhans, and the following percentage on the Government jumma of their thokedaree villages.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| From | 1 | to | 100 | Rupees, | .. | .. | 3 | Rupees. |
| „ | 100 | to | 150 | „ | .. | .. | 4 | „ |
| „ | 150 | to | 200 | „ | .. | .. | 5 | „ |
| „ | 200 | to | 250 | „ | .. | .. | 6 | „ |
| „ | 250 | to | 300 | „ | .. | .. | 7 | „ |
| „ | 300 | to | 350 | „ | .. | .. | 8 | „ |
| „ | 350 | to | 400 | „ | .. | .. | 9 | „ |
| „ | 400 | to | 500 | „ | .. | .. | 10 | „ |
| „ | 500 | to | 600 | „ | .. | .. | 12 | „ |
| „ | 600 | to | 700 | „ | .. | .. | 14 | „ |
| „ | 700 | to | 800 | „ | .. | .. | 16 | „ |
| „ | 800 | to | 900 | „ | .. | .. | 18 | „ |
| „ | 900 | to | 1000 | „ | and more, | .. | 20 | „ maximum. |

Where the thokedar and pudhans are in agreement among themselves, custom has substituted many modifications and compromises of the above rule, and all these have been care-

fully recorded by consent of the parties in the settlement record. Where thokedaree dues have *never* been paid, the mere inclusion of a village in his pottah does not entitle a thokedar to draw any thing from it. It has however, generally been found difficult for the pudhans "to prove the negative" in such cases.

Records of Settlement.

23. In regard to the general rules adopted for the leasing and management of mehals, and the appointment of pudhans, the boundaries of villages and settlement of disputes concerning them,—the right to waste lands, pasture grounds and forests,—the assessable area of estates and measurement of lands—and, finally, the record of settlement,—the report for Gurhwal (paragraphs 13, 15, 16, 17, 18, 20 and 26) equally applies to Kumaon; and contains in an abstract form all the information on the subject of the settlement which it has been my aim to distribute throughout the several divisional descriptions attempted in the present report for Kumaon. The only *repetition* that appears necessary is that the *remuneration of pudhans* in land, money or dues, are all these combined, was in Kumaon settled by the mutual agreement of the parties, and failing that, decision of punchayet; and that the allotment of *huq-pudhanee* land recorded in the new settlement statements is that *actually shown by the Settlement Misls*, and not that of the old nominal records. The only *additional* remarks requisite, are, first, that at an early period in the Kumaon operations it was found expedient to drop all attempts at actual demarcation, by means of canoongoes, putwarrees, &c. of boundaries in *undisputed* waste tracts nominally included in village areas;—that it is now a general rule to lease waste lands in nia-abad tenure to the nearest villages, or to offering members of those communities rather than to strangers,—and that in the Settlement Misl,—though still less a declaratory record, than *a mass of cases affecting the interests of each mouzah and showing a certain state of men and things at a certain period*,—will now in the majority of instances be found an abstract proceeding or roobacarree of some kind by the Settlement Officer.

Reference to Gurhwal report for general principles of Settlement administration.

Additional remarks on pudhans and boundaries.

It now only remains for me to state how far the document called the *phurd phant*, the actual practical record in the hands of each pudhan, can be rendered *continuously*

Continuity of village record discussed.

useful. This is a most important subject, and fortunately for the avoidance of farther prolixity in the present communication it was fully discussed on a former occasion. The accompanying file of English correspondence* belonging to the year 1840, owes its existence to the Circular Letter of the Sudder Board of Revenue dated the 18th June 1839 on the subject of Khewut papers. The superior authorities, with the detailed descriptions of the Kumaon pergunnahs before them, can now be able to judge how far the system of periodical mutations in the village record to meet the various changes by deaths, successions, transfers, decrees of Court, desertions and the like circumstances, can be enforced, the separate village communities being scattered over so vast an area in square miles;—(the several divisions removed from each other almost as much by moral differences as by physical distances, and "by fell and flood,") the centralization of all things in a Collector's Office at the Sudder station being as yet practically unknown to the people;—there being no village accountants;—the pudhans being generally illiterate;—and finally, the authorities equally with the inhabitants protesting against the uninvited visits of native officials to the hill villages for purposes of investigation unconnected with crime.

Letter of Settlement Officer to Commissioner of Kumaon No. 13, 1st June 1840 and Enclosure.

Letter of Sudder Board to Commissioner No. 28, 10th July 1849.

Circumstances opposing *authoritative changes in record.*

I still retain my opinion, recorded in the correspondence alluded to, that the working of the summary suit Court,—the itinerary mode of conducting their duty found necessary by the European officials;—and the growing sense of the importance of village records among the people themselves, will *in time* effect the important objects contemplated by the Board and Government, and bring about changes in the records of possessions and liabilities, *whenever and wherever found necessary.* To enforce by authority a regular system for this object, whether thought necessary or unnecessary by the subjects, would be to change by legislative measures the character and habits not of one race or tribe, but of many, and its impracticability may, therefore, be assumed. In the meanwhile, if it is feared that the zeal of the local agents of Government may be flagging in regard to their saving the inhabitants as much as possible from

Opinion of Settlement Officer.

* See Appendix 1849.

Instructions required.

the miseries entailed by uncertain tenures and their consequence, litigation; the future instructions of superior authority founded on a more extended knowledge of local circumstances, would doubtless be a salutary and I may add, an acceptable, stimulant to greater exertion.

Protest against increased employment of Government Putwarrees.

I cannot, however, close this subject without offering my humble protest against any increase to the labor and responsibilities of that underpaid and overworked class of public servants, the 38 Government *Putwarrees* of Kumaon, who, now on the miserable pittance of Rs. 5 per mensem, perform a large proportion of the duties elsewhere undertaken by tuhseeldars, thannadars, nazirs, ameens, and chuprassees.

Canoongoes available but suspicious agents.

The five canoongoes of the district are certainly an available body, and, hitherto that full use has not been made of their services which is usual elsewhere, especially in the department of tuhseeldarree accounts. But, on the other hand, with our small establishments, their employment in other duties would still more impair the efficiency of the department alluded to, while, owing to the hereditary nature of their offices,* their employers are deprived of the advantages of a large choice of agents, and the danger of adding to family and caste influences, already thought too great and ill-exercised, becomes imminent.

Goont maafee and sadâburt lands.

24. The zillah and pergunnah statements, compared with the registers prepared at different times in the separate maafee departments itself, shew that the goont or religiously assigned rent-free land appropriated in Kumaon Proper amounts to 13,455 beesees, of which 2,230 are contained in the area of villages otherwise khalsa or revenue-paying, and 11,225 beesees, belong to separate entire mouzahs. Of these last, 60 mouzahs or pergunnah Kutolee, and 31 or pergunnah Muhroree, belong to tracts near the capital granted by the late Gorkhala government in sadâburt tenure to

Goont or religiously assigned.

* Note.—Their pay in exchange for resumed Nankar lands is fixed at Rs. 25 each. In Gurhwal the amount is Rs. 31-8.

the respective temples of Budrinath and Kedarnath in the great Himalayan chain. Their whole *fiscal management* is now by orders of Government left to the Rawuls of those *establishments*, interference in that matter being only permitted to the district officers, in cases of urgent complaint brought to the notice of the Commissioner, and made over for investigation by him.

Sadâburt for distribution of food to pilgrims.

In all other affairs, the ordinary course of law takes effect in the sadâburt pergunnahs as in the khalsa, but the two Putwarrees are paid by the Rawul, and not from the Treasury. The *maafee* lands still held rent-free by individuals, amount to 2,913 beesees of which 531 form alienated parts of malgoozaree villages, and the remainder are contained in 93 separate mouzahs.

Maafees rent-free to individuals.

The chief maafeedars in the province are the two brothers, Prem Nidhee Shastree and Rama Puttee Shastree who succeeded their father Gungaram Shastree, the original grantee of the Goorkha Government about ten years ago, and whose tenure has hitherto, therefore been considered, hereditary.

Their possessions principally lie in Dhunneakote, but they have villages in Seeondra and Kuttoor, &c. All the other maafeedars, except Dhun Sing* and Hurdeo Borah* in the Bhote mehals, are also Brahmins of the Joshees, Pund, Pandé, Tewarree and Oopretee families. A good deal might be said on the subject of the extensive resumption of maafees by Mr. Commissioner Traill, and the consequent creation of a class of educated men looking solely to the *public service* for support, and whose *unpopularity* with the people is in a measure thrown also on the Government which employs them; but I refrain from increasing the magnitude of this Report by discussions altogether foreign to the revision of settlement.

Allusion to resumption of maafees.

25. All has, I humbly conceive, been now told of Kumaon Proper and its several hill divisions, in regard to matters of revenue and land, the narration of which can fairly be expected from the Settlement Officer.

Science resources, &c., &c.

Practical final remarks.

** Note.— At Melum and Choudansa.

The Bhabur division has been previously described in the Reports and Appendix forwarded with the settlement statements in the year 1846-47 A. D., while the outline of Kumaon history can be found, as abovementioned in my "Notes on the Turace" published in the *Asiatic Society's Journal* in 1844. The valuable printed Reports of the late Mr. G. W. Traill have also been referred to as existing among the "Researches" of the same learned Society. To fulfil the requisitions of the Honorable the Court of Directors contained in their despatch, No. 67, June 3rd 1846, and to furnish, for the two hill districts, (the revenue arrangements of which for twenty years have been made through my agency,) a full and accurate reply to their statistical enquiries, would demand an amount of information and accomplishment not likely to be found in one individual. The want of a geographical and general survey complained of in the Turace is happily about to cease under the operations soon to be commenced in *that* region. A revenue survey of the mountain pergunnahs, to complete the information not supplied by the existing maps, and founded on the principles adopted and proved useful in the plains-Provinces, can hardly be expected, after the Government has been informed by its district Officers that such a survey, however beneficial in determining existing agricultural possessions, would not favorably affect the total amount of revenue in regard to the state; and, if permitted to modify the distribution in regard to the inhabitants, would perhaps end in seriously injuring the budget. For, would not its *tendency* at least, be to equalize the payments strictly derivable from the gross produce of the soil; to fix a Government share of that produce founded on experience elsewhere; and *to exclude from the fiscal capabilities, assets which the people have been hitherto content to consider available for the nominal land tax?*

Statistical data not procurable by one individual.

Revenue survey not expected.

Fortunately for the objects held in view by the Hon'ble Court, opportunity has recently been taken of the presence in this province of competent individuals, and their intimacy and constant communication with others still more competent employed elsewhere, to engage the services of Lieutenant R. Strachey, (of the Engineers) and his friends in the cause of Himalayan science. Thus, not only are the geology, botany, and meteorology of these interesting regions finding at last their long due development, but there is also every probability, if time be allowed, of the main geodeti-

Scientific commission now at work under Lieutenant R. Strachey, Engineers.

cal data of the great Trigonometrical Survey being usefully applied to the separation of circles of facts within certain fixed points and to the filling up of each of these circles with topical and even ethnographical* details. In this work my own part is only that of a pioneer and assistant laborer, and in this capacity whatever miscellaneous knowledge my long experience in these mountains has enabled me to attain has been, and will be freely placed at the disposal of the accomplished Officer just named.

In concluding, therefore, this report, I content myself with offering the following practical observations.

*First.* In regard to *economic geology*, I yet hope to witness a marked improvement in the method of working the mines, reducing the copper and iron ores, and manufacturing the actual metals into a form better fitted than now for the forge and melting pot.† Nevertheless, with our present and prospective means of carriage, our local want of capital, its more profitable investment elsewhere, and above all with the overwhelming *cheap* productiveness of the English and, we may now add, Australian export market, the much talked of metallic wealth‡ of the Himalaya must, I fear, be considered the shadow of a shade, "a thing to dream of, not to see."

Metals unprofitable.

*Second.* No great increase of the land revenue under the present system need be expected. In opposition to the prevailing opinion, I think I may safely say that Kumaon is over assessed rather than under assessed; that is, a *large* portion of the rent of land in the old occupied tracts is now taken by the state as both *de jure* and *de facto* landlord; and that though no actual hardship is experienced; though pauperism is unknown; though a puharree coolie is always better lodged and often better fed and clothed than a desee ryot; and though a general

Land revenue not improveable.

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* NOTE.—In this report no account of the several classes of inhabitants has been attempted, but both the philology and ethnology of Kumaon are engaging my attention. In the meanwhile, the division of the people into Brahmins, (1) Rajpoots, (2) Khussia Brahmins, (3) Khussia Rajpoots, (4) Soodra Khussias, (5) and Doms or outcastes, is now mentioned as being well marked and notorious.

† NOTE.—The Gypsum and Alum beds of the saliferous series of rocks at the foot of the hills, may also some day, it is hoped, be brought into economic use.

‡ NOTE.—This is quite a different thing from the quantity and good quality of the metalliferous deposits of which I have very little doubt.

feeling of content and loyalty exists, still, I can perceive in the present status of affairs, no elements of increasing wealth, of which revenue will be the future sign and expression. In the ill-inhabited tracts, the low assessment is owing to causes which, except in the most insalubrious vallies, may give way before the march of population. But, as I fully believe that in the well-inhabited tracts the revenue is paid by the people themselves more in the way of a *capitation tax** than any thing else, in the same degree that the fisc improves in Kuttoor and Gungolee, will it in all probability decline in Palee and Baramundel.

Immigration from the plains is unknown. Disease within the hills thins and weakens the population much more than is generally known; while the badness of the Goorkhalee Government on our frontier affords the only *foreign* cause and source of supply.

Under these circumstances, those who look to the spread of the cultivated tea plant over these mountains as likely to change their financial position to the state altogether, and to convert them into treasuries of surplus revenue, may not be far wrong. If this extension of the China herb be at *first* carried on in the way, I have pointed out in the preceding report, without disturbing present possessions, and thus exciting, more than the ordinary and normal native disgust at the novelty, the present generation may yet behold the now jealous occupants of rice and wheat fields, humble applicants for tea seeds.

Tea, a probable valuable staple product.

*Third.* It would be out of place here to *enlarge* on the extreme impolicy in every point of view of *isolating* Europeans of the less educated classes on scattered points in the mountains. This much, however, may be asserted, viz., that, although *horticultural* pursuits at elevated situations can be followed with pleasure and profit, *agricultural* labor out of doors, *cannot* be performed by Europeans with safety to their health in any part of the hills, where, (supposing the lands were not already occupied) agriculture could be made a means of livelihood and gain: also, that in the case of *families*

General European colonisation of the hills impracticable and unadvisable.

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* NOTE.—It is far from uncommon for a man to request a decrease of his "rukkum" because of the death or desertion of his wife or daughter.

having the children European on both sides and placed in solitary *mountain homes*, any additional physical strength of the offspring would, but poorly compensate for the mental degeneracy entailed by the loss of all christianizing, educating and civilizing influences. I forbear to dwell on the spectacle of degraded manners and morals which would in too many cases be presented to the surrounding native population, where the influence even of *family* and *home* would be wanting.

Real benefits of the hills to Europeans.
Sanataria, schools, cantonments.

*Fourth.* I wish to add, that, after all, in my humble opinion, cold air, cold water, and facilities for healthy exercise and innocent amusement, are the best resources of these mountains which the European rulers of India, can open for their own benefit; that in endeavouring to procure these blessings for our countrymen of all classes, combined with those of religion, education and order, we shall best secure our object by increasing the number of sanatory stations, and cantonments, and by the formation of schools, and invalid colonies, under military discipline and management, on all the higher ranges, *which may be conveniently situated* in *regard* to *access from the plains*, and consequently to cheap and plentiful supplies:

European superintendents at mines and tea-nurseries important.

In the interior of the hill provinces, at the several mines and tea plantations, a few active intelligent Europeans might perhaps find beneficial employment, and prove themselves of use to the natives as instructors and as examples of skill and industry. It would, however, be a matter of the most vital importance that the selection of these men should be made with the greatest care by their employers, whether Government, public companies or private capitalist, (should any such be found venturing on Himalayan enterprize;) in fact, (and I cannot say more,) with as great care as was taken by Captain H. Drummond in his choice of Mr. Wilkin, the excellent cornish miner, formerly employed at Pokree in Gurhwal.

26. I have been enabled through the kindness of my friend Major Madden of the Artillery, to append to this Report a list of the principal agricultural products grown in Kumaon Proper.

## CEREALIA, LEGUMINOSÆ, AND CRUCOFERÆ.

### Rubbee Crop.

| | | | |
|---|---|---|---|
| 1. | Triticum, *vulgare*,..... | Wheat, two varieties. | *a.* "Lalgehoon," bearded, *b.* "Daoodkhanee;" beardless, (grain white,) |
| 2. | Hordeum hexastichon,.. | Barley,..... ..... | "Jow" several varieties. |
| 3. | Hordeum Cœleste,..... | Celestial barley,..... | "Ooa Jow." |
| 4. | Pisum arvense,..... | Field pea,..... | "Kulon." |
| 5. | Ervum lens,..... | Vetch,..... | "Musoor." |
| 6. | Cicer Arietinum,..... | Gram,..... | "Chunna." |
| 7. | Sinapis dicho toma, .... | Mustard,..... | "Lehta," "Luhota," "Juria." |
| 8. | Sinapis glauca,..... | (Roxburgh) ditto,.. | "Rara." |
| 9. | Sinapis glauca,..... | (Royle) ditto,..... | "Daeen," "Dyin," "Laee." |

The last three, especially No. 9, which is not included in Roxb: Fla. India, are largely grown as oil seeds.

| | | | |
|---|---|---|---|
| 10. | Sinapis ramosa,..... | (Royle) Mustard,.. | "Burlaee." |
| 11. | Sinapis rugosa,..... | (Ditto) ditto, ..... | "Badshahee" or "Bhotiya Laee." |

Both cultivated as vegetables.

| | | | |
|---|---|---|---|
| 12. | Sinapis erijsimoides ?... | (Roxb.) Mustard,... | "Raee," "Mukura Raee." "Bunarussee Race," much grown as a condiment and medicine. |
| 12½. | Linum usitatissimum,.. | Flax,..... | "Teesee," "Ulsee." |
| 13. | Raphanus sœtivus,..... | Radish,..... | "Moollee." |
| 14. | Fœniculum panmorium, | Fennel,..... | "Sonp" "Sonf." |
| 15. | Coriandrum sativum,.. | Coriander,..... | "Dhuniya." |
| 16. | Anethum sowa, ..... | Dill, ..... | "Soa." |
| 16½. | Papaver somniferum,.. | Opium,..... | "Posht." |

### Khurbee or Khurreef Crop.

| | | | |
|---|---|---|---|
| 17. | Oryza sativa,..... | Rice, ..... | "Dhan," many varieties. |
| 18. | Panicum italicum,..... | Millets, ..... | "Konee," "Kungnee." |
| 19. | Panicum frumentaceum, | | "Mandira," "Jhoongura." |
| 20. | Panicum miliaceum,... | | "Cheena," "Gandra." |
| 21. | Eleusine corocana,.... | | "Mundooa," "Murhoa." |
| 22. | Zea Mays,..... | Indian Corn,..... | "Mukaye," "Bhootta." |
| 23. | Amaranthus farinaceus,. | Amarauth , ..... | "Chooa," "Mursa," "Ramdana," "Bhuttoo" of Bisselur. |
| 24. | Fagopyrum, *vulgare*,... | Buckwheat,..... | "Ogul." |
| 25. | Fagopyrum tataricum and emarginatum, .. | ..... | "Phaphur," "Bhe." |
| 26. | Perilla ocimoides,..... | Oilseed. ..... | "Bhungura," |
| 27. | Sesamum Orientale,... . | | "Till." |
| 27½. | Sorghum, *vulgare*,..... | ..... | "Jowar," "Jeonoolee." |

*Solanaceæ, &c. &c.*

| | | | |
|---|---|---|---|
| 28. | Capsicum frutescens,.. | ..... ..... | "Koorsanee." |
| 29. | Solanum melongena, .. | ..... | "Baingun." |
| 30. | Solanum tuberosum, .. | Potato,..... | "Aloo." |
| 31. | Saccharum officinarum,. | Sugar-cane..... .... | "Rikhoo." |
| 32. | Colocasia Himalensis,.. | Two varieties of edible Arum, | "Ghweeya." |
| | *a.* "Pinduloo" .. | (white) Leaf called.. | "Papur." |
| | *b.* "Gudeerec". .. | (red) ditto called.. | "Gabah." |
| 33. | Dioscorea, ..... | 2 species yet undetermined of yam, | "Genthee" and "Gujeer." |
| 34. | Cannabis sativa, ..... | Hemp,..... | "Bhung." |

*Cucurbitaceæ.*

| | | | |
|---|---|---|---|
| 35. | Monordica charantia,... | ..... | "Kurela." |
| 36. | Luffa acutangula,..... | ..... | "Torye." |
| 37. | Luffa pentendra, ..... | ..... | "Gheea torye." |
| 38. | Cucurbita pepo, (Roxburgh.)..... | ..... | "Petha" "Bhoonja" "Kumhra." |
| 39. | Cucurbita maxima,..... | ..... | "Gudooa" "Kudoo." |
| 40. | Cucurbita citrullus, .... | Water-melon, ..... | "Turbooz." |
| 41. | Trichosanthes anguina,.. | ..... | "Chichinda." |
| 42. | Lagenaria *vulgaris*,..... | several kinds,..... | "Loukee," "Toomree," &c. |

*Pulse, &c.*

| | | | |
|---|---|---|---|
| 43. | Dolichos sinensis,..... | ..... | "Lobia." |
| 44. | Dolichos uniflorus,..... | ..... | "Guhut" "Koolthee." |
| 45. | Dolichos catjang,..... | ..... | "Ree-ensh" 3 varieties black, white and yellow "Souta." |
| 46. | Lablab cultratum,..... | ..... | "Sheemee" in gardens. |

*Dolichos Lignosus, (Roxburgh.)*

| | | | |
|---|---|---|---|
| 47. | Sojahispida, ..... | ..... | "Bhut" (Soy, Dolichos Soja of Roxburgh) |
| 48. | Phaseolus Radiatus, (Roxburgh,)..... | ..... | "Oord." |
| 49. | Phaseolus Mungo,..... | ..... | "Moong" (rare.) |
| 50. | Phaseolus torosus,..... | ..... | "Goorounsh." |
| 51. | Trigonella fœnum-græcum,..... | ..... | "Methee." Sâg. |
| 52. | Abelmoschus esculentus,. | ..... | "Ram-toray." |
| 53. | Gossipium herbaceum, cultivated in Bora Rao, &c., up to about 4500 feet,..... | Cotton, ..... | "Kupas." |

*Dolichos Lignosus, (Roxburgh.)*

| | | | |
|---|---|---|---|
| 54. | Hibiscus cannabina (in Bhabur,) | ..... | "Sunn." |
| 55. | Phytolacca decandra, .. | ..... | "Jirrug." |
| 56. | Zingiber officinalis,.... | ..... | "Ada" "Adruk." |
| 57. | Curcuma Kuchoor, .... | ..... | "Huldee." |
| 58. | Papyrus pangorei,..... | ..... | "Motha," cultivated for the durable mats made from its culms. |
| 59. | Punica granatum,..... | ..... | "Durim;" the pomegranate: the rind of the fruit is much exported. |

# APPENDIX.

FROM J. H. BATTEN, ESQ.,
*Settlement Officer,*

To G. T. LUSHINGTON, ESQ.,
*Commissioner of Kumaon,*
*Dated Kumaon, the 1st June* 1840.

SIR,

In reply to your letter and its enclosure from the Sudder Board, on the subject of the Khewut papers in this province, I have the honor to inform you that I have attentively considered the matter, and if the Sudder Board had not stated it as their decided wish that some definite rule should now be laid down, as to the mode of recording changes which may occur in village holdings and liabilities, I should certainly have coincided in the opinion given by yourself to the effect that we have no means available in this province for the periodical record of such changes.

2nd. As, however, I have now been called upon for a distinct opinion on this subject, I beg leave in the first place, to forward the translation of the pottah which under my new settlement is given to every village pudhan of a bhyachara village, and to remark that much may be done towards effecting the object in view, if the district Collector shall act up as far as possible to the rules therein laid down; enforcing them whenever he may discover that they have been neglected or violated, I may at the same time observe that many of the pudhans in Gurhwal have protested strongly against the injunction which compels them to keep a village account-book. I have no reason to suspect that the majority of those who have thus protested, have any sinister objects to gain by this rule being neglected,—the real fact being, that they cannot read and write; and, that in the absence of village accountants corresponding to the putwarrees in Hindoostan, they have no ade-

quate means of procuring substitutes for that kind of village functionaries. Under these circumstances it is difficult to say, how the keeping of village accounts can be enforced, save by the district Collector rigidly refusing to listen to any claims preferred in the summary suit Court by any pudhan who cannot produce than in some shape or other, or who has obviously violated or disobeyed any of the rules laid down in the pottah upon which he makes his suit.

3rd. In Gurhwal, where, on account of the contracted state of the population and the general absence of any money collections beyond individual quotas of the Government revenue, and certain fixed dues to pudhans and thokedars, the only Khewut papers are rolls of payments, the sum total of which make up the Government revenue demand. Where, too, it has been found impracticable to prepare any field map, or other record, (save one merely nominal) of actual possessions, we have merely to determine in what manner the *phurd phants*, prepared by the communities and officially attested at the settlement, shall be periodically *altered* to meet the circumstances as they occur. You have yourself informed the Board of the objections which stand on the way of any record being allowed to be made merely through the agency of a thokedar, a village pudhan, or an official district putwarree. I see no way of removing these objections (founded on the general simplicity and ignorance of the hill people, and also on their clanship and jealousy, as affecting the thokedars and pudhans, and their hatred of all native officials, as affecting the putwarrees), save by fixing that the European district Officer, be the immediate director in all *public* changes of the record. I would suggest that annually between the date of the last rubbee kist, and that of the first khurreef instalment (a period, at the least, of 5 months) the Collector should proclaim that in all villages where the pudhans and the people are agreed, and where no disputes exist, save what may be at once settled in the villages by themselves, the pudhans must take an opportunity to confirm the phants of the past year, or to make such alterations therein as the state of their communities may require, and to prepare new ones, without destroying the former ones, so that both may be produced, in case of a dispute arising during the following year. In either case, that is, whether the old phant be confirmed, or a new one be adopted, the signatures of the village shareholders, or the greater portion of them, must be affixed to the paper, and the pudhan may also, if he likes, add to this document any "*likhut*" or written agreement given to him by the people of his village, showing their consent to the ar-

rangements for the next year. The Collector should also proclaim that in all villages where disputes exist, or where there are contending factions headed by different pudhans, the old phant will be considered binding, unless before the first khurreef kist, on petitions being presented in the Court, the Collector shall have ordered the preparation of a new phant, and such newly prepared phant, shall have been sanctioned by him, (because made in accordance to his orders passed on the petitions) and entered in his office before the date above mentioned. In case that date shall arrive before the settlement of the matter, the old phant must be considered binding for the whole khurreef kist, and the new phant must take effect from the next rubbee kist. The kind of order passed in accordance to the above plan in cases of disputed villages, should, I think, be entirely left to the discretion of the district Officer: for, his knowledge of the people, in any tract, and of their native officials, will enable him to judge whether the preparation of the new papers shall be left to the village punchayet superintended by the putwarree, or a chuprassee,—whether the putwarree or chuprasee shall superintend the election of arbitrators among the neighbours of the disputants, and take proper ikrarnamahs and moochulkas from the parties disputing, and also attest the decisions made by the arbitrators;—whether a canoongoe, or other official shall be deputed to the spot to investigate the matter, and bring the dispute to a conclusion;—or, whether the Court itself shall try the case summarily as between plaintiffs and defendants, and pass its own decisions. In the case of *non-disputant* villages, I would not recommend that any copies of phants, be sent to the tuhseeldaree or to the Collector's office. On a case afterwards arising, the settlement-phant (of which copies exist in both offices) with the newly agreed to and attested roll, or the "*likhut*" produced by the pudhan, will be quite sufficient documents on which to found the decision of any summary suit. If the villagers in any case should wish the putwarree to attest by his seal and signature their own agreements of this nature, he should be enjoined to do so, without waiting for orders, but in no way to interfere unless called upon by the people. But, where the villagers are at peace with their thokedar, *his* signature should always be affixed to the new phant. In the case of disputant villages, the Collector will keep one copy of his sanctioned roll, in his own office, send one to the tuhseeldaree, and give one with his seal and signature to the pudhan.

4th. In the above proposition you will perceive that my plan is to make a distinction between a private and a public al-

teration of village records; and I do most decidedly deprecate any system which shall compel the village communities *who are agreed among themselves* to any publication of their internal changes, previous to the occurrence of any dispute. In Kumaon, and the south eastern parts of Gurhwal, there are, I fear, but very few mehals in which the direction of the Government Officer in the manner above proposed (*i. e.* after presentation of a petition) will not be found necessary. But so fully convinced am I of the impolicy of official interference with the villagers in the greater portion of the Gurhwal district (save what may be found actually necessary for the collection of revenue from the pudhans) that rather than impose upon any community the absolute duty of registering their periodical changes of holdings and liabilities (consequent on deaths, resignations, transfers, &c.) in addition to the interruption of ordinary pursuits, excitement, and production of perhaps otherwise latent disputes, which the new settlement has unavoidably occasioned, I would prefer the total absence of all enforced records whatever, and that the injunctions contained in my pottah should remain altogether a dead letter. Mr. Commissioner Traill must have been well aware of the difficulty of settling suits of the kind which we now call summary without rent rolls of some description or other, and yet it was only upon the petition of a well ascertained majority of the shareholders in any estate, that he ordered a measurement of possessions and a recorded distribution of liabilities. Such petitions were on the whole very rare, considering the number of small villages under separate leases throughout the province, and in Gurhwal certainly not more than one village in 100 possessed what they call a "surkaree phant." In the preparation of one such phant Mr. Traill often changed, on the representation of the people, the superintending officer (generally a putwarree) three different times! You are aware that in the "great measurement" of 1880 Sumbut, individual holdings were not recorded but only an attempt was made to ascertain the quantity of land in all the nominal *thokes*, which made up the whole area of mouzahs. I am now convinced that Mr. Traill dreaded a greater degree of inconvenience and injury in the employment of native officials among the village-communities than he saw in any difficulties of the Courts, arising from their non-employment, or from the absence of any regular system of record. If, however no greater excitement of disputes, nor official interference shall be hereafter allowed, than what naturally arises from the change of events, and the character of the people, I am of opinion that good and not evil will arise from the present settlement having enforced the first preparation of a village record, forming as it does the basis on

which all future enquiries will be founded, and generally superseding the necessity of investigations into records of a prior date. But, I would really anticipate great evil, if any system is introduced which by bringing the people into a *compulsory* contact with native officials, or even with the Court of the European Officer, *and by affording periodical opportunities of dispute*, shall foster rather than discourage that unfortunate spirit of clanship and mutual suspicion, which already prevails among the hill communities.

5th. In many parts of Kumaon, especially the Palee district and Baramundel, I shall, I believe, be able to procure the filling up of that column of the settlement phant headed "Fractional Share," which in the Gurhwal papers has been unavoidably left blank, for, in the former district many of the villages are fully cultivated, the whole lands being in the actual possession of parties, *who know their rights;* or, decrees of Court exist to shew what portion of a mehal belongs to each sharer, according as the lands, or, assamees, or the profits may be divided among the holders. I expect, too, that the phant which records the amount of land opposite the amount of jumma payable by each shareholder, will be prepared by the people *themselves* in Kumaon much more accurately, than it has been by the Gurhwalees, with all the aid of canoongoes and putwarrees whom I instructed in the business of their preparation. As, also, there are in that district a large number of villages held under a zemindaree tenure, a real *assameewar* phant, (not one merely of khaëkur, or resident permanent assamees) will often be found among the settlement papers, and I shall take care to provide rules by which the cases of *sirthan* and other moveable assamees shall be met, for the time of settlement, and also with a view to future changes and contingencies.

6th. My account of the Khewut papers in Gurhwal must, I am aware, be considered unsatisfactory by the Board of Revenue, if, after a consideration of the remarks which I have offered the necessity of a *self-continuing system of officially attested record* is still insisted on, the disadvantages thereof being in their opinion counterbalanced by its benefits. Therefore, before closing this report, the principle of which is to recommend a large reliance on the discretion of the European district Officers, and on the good working of the summary suit tribunals, rather than on any specific rules of practice previously laid down for general and continual adoption, I would most respectfully request that, in your own communication to

the Board, you would support my statements by pointing particular attention to the following facts, quite independent of the moral character, and habits of feeling of the people, which last have, perhaps, been sufficiently represented and discussed.

1st. The absence, generally, of actual land measurements in this province.

2nd. The existence of a fictitious measurement record, the offspring of official guess-work.

3rd. Consequently, the record of possessions (elsewhere one of the best prepared Khewut papers) here being, in general, merely nominal, and even when prepared by the villagers without reference to any fictitious area, still incorrect, and unreal, because not founded on any exact and discoverable quantities.

4th. The physical character of the country opposing much, or frequent communication between the village communities (*many* of which are often included in one malgoozaree management) among themselves;—or, between them and their Government Officers.

5th. The distance of numerous villages from their tuhseeldaree, and Sudder Office, in some cases amounting to 100 miles or 8 days' journey.

6th. The non-existence of village putwarrees, or of accountants corresponding to them.

7th. The very small number of village pudhans who can read and write.

8th. The difficulty of feeding, lodging, and carrying the baggage of, any person, such as a tuhseeldar, a canoongoe or a temporary ameen, when sent on deputation among the villages in the interior.

9th. The smallness of the public establishments compared (not with the amount of revenue but) with the number of villages in the province (nearly 10,000) and the number of square miles (nearly 11,000) over which the hamlets are scattered.

10th. The accumulation of business devolving on the local official putwarrees, each of whom, on a salary of Rupees 5

per mensem, has to collect, about Rs. 3,300 revenue per annum in four different instalments from about 100 villages widely dispersed over a mountainous country,—to superintend inquests and investigate, and report all accidents, offences and crimes,—to attend on camps with coolies and supplies, a matter, in some puttees, of frequent requisition,—to investigate, and furnish statements on all points referred to him by the Civil and Criminal Courts, and by the tuhseeldar,—and to carry into effect all orders as to local execution of decrees emanating from the nazir!

11th. The unfitness of the talooqdars, called sceanas, kumeens, boorhas, &c., but generally thokedars, for the compulsory duty of attesting and superintending changes of record, because, though highly useful to the native officials as assistants and to the village pudhans as arbitrators, they and their brethren are themselves pudhans of some villages, have disputed interests in many others, and are rarely at peace with, or respected by, all the communities over which they preside.

I have the honor to be, &c.,

(Signed) J. H. BATTEN,

*Settlement Officer.*

KUMAON:
SETTLEMENT OFFICE,
*The 1st June*, 1840.

(COPY.)

TRANSLATION.

*Deed of Revenue Engagement, or Malgoozaree Pottah, granted to Bir Sing Malgoozar of Mouzah Bimola, Puttee Tulla Tekhon, Pergunnah Baramundel, Zillah Kumaon.*

Whereas on the revision of the new settlement, the shareholders of your village and yourself having tendered an application or durkhast to hold the above named village for 20 years commencing from 1896 to 1915 Sumbut, (khurreef and rubbee harvests inclusive) and for the same to pay an annual revenue of Rs. 202 exclusive of sayer collections, viz. Abkarree, Bhuttee Khyra, &c., and an ikrarnamah from the said shareholders, consenting to the pottah being granted to you, having also been received;—therefore this pottah (subject to the confirmation of the Sudder Board) has been granted to you, confirming the engagement entered into by you to pay an annual revenue of Rs. 202, and, conformably to the kists detailed below, you will pay regularly the amount of each kist to the tuhseeldar or putwarree of your pergunnah, and take receipts for the same; and until new arrangements or liabilities occur, and the preparation of a new rent-roll, you will, according to the phant, collect the revenue now agreed to, by each shareholder, and that not, till the kist becomes due: nor, are you to collect two kists at one time. If any shareholder or cultivator is in default, in paying his share of the revenue at the appointed kist, that amount you will claim by a summary suit in the court. After one month of a new year elapsing, no claim for arrears of revenue for the past year, will be admitted in the Court as a summary suit. You will enjoy all the rights and privileges of land, and other fee as "huq-pudhannee" given to you by the free will and consent of the shareholders, and cultivators, but in no ways will you make any undue exactions, nor otherwise tyrannize over the assamees. On the occasion of any shareholder or cultivator emigrating, or any one dying without heir, and the lands of such falling out of cultivation, you will, with the conjoint aid and advice of the residents of the village, make arrangements for their being cultivated, and according to the lands cultivated by each party, you will collect the revenue. All the village accounts of Government revenue, the customary fees of the pudhan, the dues of shareholders, the sirthee or rent from sirthan assamees, and the collections from paëkasht assamees, either in kind or money, should be recorded; for which purpose you must keep a book

detailing the above, as accounts occur from time to time; for all disagreements and disputes of village parties, will be settled by reference to that account book. If any one proposes to cultivate a tract of land which has been lying waste for a long period, you will with the consent of the shareholders allow it to be cultivated, and when brought to a fair state of cultivation, you will include it in the rent roll, and make a new phant, or divisional statement with the consent of the shareholders. For undivided lands when cultivated, by any paëkasht assamees or others, you will collect the rents arising therefrom, and you must account for the same to the shareholders who will settle their claims for dues, &c., with you. Regarding other undivided cultivated lands and the revenue accruing thereon; you will from time to time report to the collector's office, and without giving 6 months' previous notice, you will not increase the jumma of such lands. All decisions of disputes regarding the boundary line of your village which has been now settled, are to be considered final; you are not to put a stop to any long existing custom of adjacent villagers taking firewood, timber, grass and grazing their cattle, &c., within your boundary. All supplies and coolies which are prescribed from your village, you will, according to orders, furnish. You are to keep the roads in repairs, and take measures for the forwarding of public letters sent through your village, and report all heinous crimes, viz., murder, theft, &c., committed in your village, immediately to your thokedar, seeana, putwarree or thaunadar.

| *Khurreef Kists.* | *Rubbee Kists.* |
|---|---|
| From 1st to 15th Nov., @ 4 as. Rs. 50-8. | From 1st to 15th May, @ 4 as. Rs. 50-8. |
| „ 1st to 15th Dec., @ 4 as. Rs. 50-8. | „ 1st to 15th June, @ 4 as. Rs. 50-8. |

True Translation,

(Signed) J. H. BATTEN,

*Settlement Officer.*

(COPY.)

No. 28.

FROM H. M. ELLIOT, ESQ.,

*Secretary to the Sudder Board of Revenue,*

NORTH WESTERN PROVINCES, ALLAHABAD.

TO G. T. LUSHINGTON, ESQ.,

*Commissioner of Kumaon,*

*Dated Allahabad, the 10th July,* 1840.

SIR,

I am desired by the Sudder Board of Revenue, North Western Provinces, to acknowledge the receipt of your letter No. 21, of the 11th June, forwarding an original report from Mr. Batten, the Settlement Officer of Kumaon, on the subject of the preparation of the Khewut papers: and in reply to inform you that the Board's especial object is, to obviate alike the necessity for, and the practice of official interference with the internal concerns of the mouzahs, and to induce the habit of self-government in as a community. But without some record of internal arrangements as evidence of the nature and fulfilment of the various relations mutually existing among the members of the community, it is not easy to say how these cases can be met, in which (as must occur) a necessity for the interference of authority may arise.

2nd. The Board understand the Settlement Officer's view to be, to attempt no compulsory arrangement, but to enforce the keeping up accounts by invariably refusing all assistance on the part of Government Officers to levy dues where accounts are not produced, and to maintain the record by giving public notice that the phant drawn up at settlement, will be invariably acted on, till the Collector has sanctioned a different one,—leaving it to the Collector, whenever application may be made for his sanction to an alteration of the *phant*, to adopt such mode of satisfying his own judgment regarding the propriety of the proposed change, as to him and his controlling superior may seem meet.

3rd. Under the circumstances stated by Mr. Batten and confirmed by your own opinion, this appears to the Board to

be all that can be obtained without losing sight of the principle of avoiding external interference; and they, therefore beg that you will cause the above principle to be acted on, and that you will make it the aim of your administration to lead the people on to record in the district office the arrangements formed by the municipalities, so as to enable us to administer their concerns according to their own usages.

4th. The Enclosures of your letter are herewith returned. Copies having been retained for record.

I have the honor to be, &c.,

(Signed) H. M. ELLIOT,

*Secretary.*

*Sudder Board of Revenue,*
*N. W. P., Allahabad,*
*The 10th July,* 1840.

# REPORT

ON THE

# COPPER MINES OF KUMAON

BY

CAPTAIN H. DRUMMOND,

3RD BENGAL LIGHT CAVALRY.

*(From the Journal of Asiatic Society, Vol. VII., Page 934).*

MANY of our readers will be aware, that Captain DRUMMOND of the 3rd Light Cavalry, brought with him to this country, when he returned about two years ago from furlough, a practical miner from Cornwall, and that, upon his application, the sanction of Government was given to the employment of this person, under Captain Drummond's superintendence, in the examination of the capabilities of the mines of copper in *Kumaon*, with a view to the introduction eventually of a better method of working them. These mines were reported upon at length by Captain HERBERT ten years ago, but as the observations of a practical workman upon their present condition, and upon the methods of extracting the ore which are in use, cannot be without interest, the Government has permitted the following report by Captain DRUMMOND of his proceedings to be printed in these pages.

*Mines of Copper in the Eastern Districts of Kumaon.*

Of the mines of copper situated in the eastern division of this province only two are now worked, one at *Rye* in the pergunnah of *Gungowlee*, the other at *Sheera* in *Barrabeesy*, the rest, namely, *Belar*, *Shore*, *Goorung* and *Chincacolee*, have all fallen in, and been abandoned, and are consequently inaccessible at the present moment.

The mines of *Rye* and of *Sheera* have been worked nearly to the extent available, that is to say, available so far as native mining (or rather burrowing) can accomplish; not that the re-

sources of these mines are by any means exhausted, but only that part, which being near the surface, can be obtained without the aid of skill and capital.

From the length of time that these mines have been worked, the appearance of the ground about them could not be expected to be very different from the condition in which it was found, but their poor state at present is no argument, why they should not become very profitable when prosecuted to a greater depth.

In other countries it seldom happens, I believe, that mines of copper are found to be productive near the surface, and in Cornwall few of them ever yield a return till a considerable depth underneath is reached, as much as 30 or 40 fathoms. And the greater part of this distance consists generally of little else than the mere ferruginous substance, termed gossan, which covers the ore, whilst scarcely any of the latter can be discerned. By analogy, therefore the same may be expected here, and this is so far confirmed by the native miners, as well as by the present and former lessees of the mines, who assert that the quantity of ore increases considerably in the downward direction. In no instance have I yet learned of a mine having been given up on account of deficiency of copper ore: all concur in the belief that there is no want of ore, but a great want of the means for extracting it.

*Rye Mine—Pergunnah of Gungowlee.*

This mine is opened on the eastern side of a hill of moderate elevation. The rock formation is composed of dolomite and talc. The dolomite* occurs compact, slaty and chrystalline, and might frequently be mistaken for common primary limestone, but its feeble effervescence in acids readily distinguishes it as a magnesian carbonate of lime. The talc occurs in beds, both indurated and slaty, the soapy killas of Cornwall; and it is in these beds, that the ores of copper are found in numerous strings, having every appearance of being leaders, as they are called, to solid ore, and maintaining a distinct course, which I shall accordingly denominate lode, agreeably to the term used in mining. The strike, or direction, of the strata, is nearly W. N. W. and E. S. E. dipping at an angle of about 45° to the N. N. E.

* Dolomite is not a rock producing copper in England, but it is known in other countries to contain ores of this metal and of iron. The rich mines of Cuba are said to be in it.

The present entrance is by an adit or passage, which serves as a drain. The adit is driven on the course of one of these lodes, which continues west about 10 fathoms, when it falls in with another lode, that alters its direction to 15°, and afterwards to 30° north, inclining nearly 50° to the east of north. At the time I penetrated to the working part of the mine, it was then about 58 fathoms from the entrance. The lode had been taken away from underneath, as deep as the miners could manage to excavate, and its place filled up with rubbish. Above also they had taken it away as high as it was found to be productive; and, when I saw them at work, they were then extending their operations in the same westerly direction, the lode being about two feet wide, and containing good yellow copper ore, but with a large proportion of its talcous matrix, 20 per cent. only being metalliferous.

The passage varies from two to four feet in height, and from two to two and a half in width; the superincumbent hard dolomitic rock not allowing the laborers to make it higher, without having recourse to blasting, with which they are totally unacquainted. A short distance above the entrance is an old adit, which has been carried on the course of the same lode, and is now kept open for the purpose of ventilation.

The yellow sulphuret of copper, or copper pyrites, in its perfectly pure state yields about 30 per cent. of metallic copper; and though not a rich ore, is the most important of any from its abundance and from being generally more to be depended on for continuance than the richer varieties.* In England, more copper is obtained from it than from all the other ores together; and, should this mine be prosecuted to a greater depth, I have no doubt, that the strings of ore abovementioned, will be found to lead eventully to solid ore, when data as to the actual capabilities of the mines may with certainty be obtained.

In the event of an experimental mine being established here, a new adit, 80 fathoms in length, will require to be brought in lower down the hill, so as to reach the present mine 10 fathoms below the entrance, and drain the whole of it, along with a considerable quantity of new ground, which the natives report to be very rich, but say they cannot work it on account of the accumulation of water.

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* Extensive beds of copper pyrites occur in the mining districts of Sweden.

About a couple of hundred yards to the north, and in the same hill, is another deposit of copper. This is laid open to the surface during the rainy season, and allowed to fall together again, as soon as the water employed by the natives to carry off the talcous mud from the ore, ceases to be plentiful. An awkward attempt had been made by the present *teekadar* (lessee of the mine), to mine this with timber, but without success; and it was at the time I visited the spot abandoned, and the works lying full of water. To have an effective mine here, it will be necessary to sink a perpendicular shaft of 12 fathoms, and to bring in an adit about 50 fathoms in length, so as to come under the works above described about eight fathoms, and lay open a space of ground, also believed to contain a considerable quantity of ore.

*Sheera Mine—Pergunnah of Barrabeesy.*

The mine of *Sheera* is situated on the northern side of a hill, somewhat higher than the one at *Rye*, and is entered by an adit, which is driven south in the course of an evidently non-metallic vein, (no traces of copper being found in it :) and this the natives must have made use of, to assist them in penetrating the dolomite rock, which, with beds of talc, constitutes here likewise the formation wherein the ores of copper are discovered. Nearly 33 fathoms from the entrance, the adit strikes a copper lode, on which a level passage is driven, that continues westward, its course being about 10° south of west, and dip northerly from 45 to 50°. Scarcely any thing could be seen of this lode, which has been all taken away, and its place supplied with timber, until I arrived at the end of the level (18 fathoms in length), where it seems to intersect another lode, running in a north-west and south-easterly direction, which is poor at this particular locality. The former lode resembles the ore at *Rye*, but the ore is harder and more contaminated with iron pyrites.

The adit is also continued south from the strike of this lode a few feet, when it enters a confused mass of timbering and stones, having the appearance as if ore had been excavated in every direction ; it then runs 15° west of south, and is about 10 fathoms in length. At the end of this passage, a pit is sunk (said to be 35 feet deep) on a lode running 5° north of west. When I penetrated to the spot, it was half full of water, which six men were constantly employed in lifting up in small baskets, to prevent the flooding of the working part of the mine, with which there is a communication, as is evident from the currents of water and air that come from that quarter.

The *teekadar* reports the lode at the bottom of the pit to be very rich, but complains of deficiency of hands to work it. Should the passage of the mine be enlarged, men of a different caste from the miners might be employed to draw off the water, and the whole of the miners set to work at the ores. There is no want of ventilation, as the air is constantly circulating from the works to the pit, and from thence to the strike of the first lode, not far from which are two holes brought down from an old adit, formerly the drainage of the mine. The appearance of this mine warrants the repairing and enlarging of the adit, which is the first thing to be done: more satisfactory data will then be obtained as to the character and number of the lodes, than can be hoped for in its present wretched state: the bringing in of a new adit may then be taken into consideration.

I shall now offer a few practical observations by my mining assistant, contrasting the modes of working here with what he has been accustomed to witness in Cornwall.

1. "*The mode of excavation.*—This is performed with a very indifferent kind of pickaxe; the handle being made of a piece of wood with a knob at one end, into which a piece of hard iron is thrust and sharpened at the point. This, with a miserable iron hammer, wedge, and crowbar, constitutes all the apparatus that the native miner has to depend upon. It is plain that with such tools no hard rocks can be penetrated, nor can the softer ones be worked with much facility; and to this fact may be attributed the universal smallness of the passages throughout the mines; as the native miner can have his passage no larger, than the rock which encloses the ore and its matrix will admit of.

"I would therefore suggest that proper pickaxes and steel gads (wedges) be substituted instead of the inefficient tools in use, and when blasting may be required, the necessary materials should be provided. On the other hand, where timber may be requisite, sawn wood should be used to render the passages permanent and secure, in place of the branches of trees now employed for that purpose; and I judge from experience, that a man accustomed to work under these improved circumstances will excavate and extend a large and commodious passage in a less time by one-third, than that occupied for the same distance in excavating the miserable holes under the native mode of working.

2. "*The conveying the ores and refuse from the mine.*—This is performed by boys, who pick up the stuff with their

hands, and put it into skins, which they drag along the floor to the entrance of the mine. In place of this method, wheel-barrows and shovels should be used, when the passages are enlarged; and a boy might then easily discharge *four times* as much as he can at present.

3. "*The pulverizing of the ores.*—This is performed by women: a large hard stone being placed on the ground on which they lay the ores; they then either with a stone, or hammer, more frequently the former, proceed to pulverize them and to pick out the impurities: in this manner a woman may manage from one to two maunds per day, according to the hardness of the ores. In Cornwall, a woman will pulverize from 10 to 15 hundred weight per day, according as in the former case, to the nature of the ores. The method in practice there is, first to dispense with the picking: secondly to have the ores elevated, so as to enable the individual to stand while working, and to have a plate of iron about a foot square and two inches thick on which the ores are broken with a broad flat hammer: the impurities are then finally separated by a peculiar mode of dressing the ores with a sieve, by which a boy gets through with from one and a half to two tons per day. The ores are conveyed to the women, and from them to the boys by a man who attends for that purpose.

4. "*The washing and cleansing of the poor ores from slime and other impurities.*—This also is performed by women, who carry the stuff from the entrance of the mine to a stream in baskets, where they contrive by dabbling with their hands, to wash off the mud and finer particles of the earth. They then proceed to pick out all the pieces of ore they can get hold of; or in the case of what may be submitted to the water in a comminuted state, they work this against the stream, so as to gather it clean at the head of a small pit by handfulls; but, from the bad construction of the pits, it is with difficulty that this is performed. After picking up any larger pieces of ore, which may have gone back with the stream, they scoop out the refuse with their hands, and then proceed with another charge. In Cornwall, one woman provided with a wheel-barrow and shovel for the conveying and washing of the ores, and a boy with a sieve for dressing them, as formerly mentioned, would accomplish an equal task to that of ten women on the system described.

5. "*The drainage of the mine.*—In the first place, this is managed in a proper manner by an adit. But whenever any at-

tempt is made to go below it, as is the case in most, if not all the mines, the water is then raised in woodden buckets handed from one man to another, until they reach the adit into which they are emptied. In this manner six, ten, or even more men may be employed, whilst only an inferior number can be spared for excavating the ores. At the *Sheera* mine, for instance, six men are constantly engaged in lifting up the water and there are only two at the ores: the water raised by these six men, could be effected with a hand-pump by one man: but in order to keep the pump constantly going, two men might be required, and the remaining four added to the number of those who are excavating.

Lastly.—"To obtain sawn wood for rendering the passages permanent and secure, the art of sawing, which is entirely unknown to the people here, ought to be introduced."

The foregoing remarks having reference simply to the rude and inefficient modes of work now actually in practice in this province, the rectifying of them will form the first stage of improvement. No allusion has hitherto been made to the vast results from machinery, which in England may be witnessed in almost every mine: nor have the important processes of reducing the ore to the metallic state, been yet adverted to, though these are on a parallel with what has been said on the subject of extraction.* However, from the statements which have been made, it may be seen, that notwithstanding the mountaineer receives but a very slight remuneration for his labor, yet considering the extravagant manner in which that labor is expended, an exorbitant rate is paid for the really serviceable work performed. Thus it is not so much the grinding avarice of the *teekadar*, that oppresses the miner, as the system upon which he works, that cannot admit of his being much better paid. To relieve this class of people, therefore, and raise their condition, it is much to be desired, that a new management should be adopted; while, on the other hand, were the mines equal to the very best in Cornwall, no great profit could ever accrue from them, worked as they are at present.

The almost inaccessible state of these mines, and the great difficulty of making any observations at all in such places, as well as the interruption alluded to heretofore, namely, the illness of my assistant, whom I was obliged to bring back to

* The charcoal smelting furnaces of Sweden appear to me to be the best suited for these mountains.

cantonments in a very precarious state of health, have prevented me from making this report so full as I should have wished. It appeared to me desirable to take, in the first instance, merely a rapid glance at the whole of the copper mines throughout the province, before the setting in of the rains, (when they become inaccessible,) with the view of determining the most eligible locality for bringing the question of their productiveness to the test of experiment. The mines of the western pergunnahs, which, by all accounts, are the richest, I have not yet had an opportunity of examining; but though my plans have been frustrated in that respect, I can nevertheless recommend a trial of one of those I have already visited; to wit, the *Rye* mine. It is unfavorably situated for a new adit; but from the appearance of the ground, and the probability of cutting new lodes underneath by traverses from the one now worked, the superior quality of the ore, together with what information I have been able to gather from the natives, as to the character of the lode at a greater depth, I consider it in every way the best suited for an experiment, an estimate of the probable expense of which is herewith annexed.* Should the Government deem it expedient to authorize the work being commenced, my mining assistant Mr. WILKIN, is fully competent to carry on the detail; and Lieutenant GLASFURD, Executive Engineer of *Kumaon*, has offered his services to superintend, as far as his other duties in the province will permit, and to further the undertaking by every means in his power.

I shall now conclude with a summary of the different points of inquiry, upon which I should wish to ground my next report of the mines of copper in this province.

Some account of the rocks, considered in an economical point of view.

The ores seem to be of the usual varieties, and need merely to be specified. Assays from selected specimens hardly give a correct estimate of produce.†

The important thing to be noticed is, the quantity that may be obtained. This will depend principally on the width

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* It is estimated by Captain D., that the cost of the proposed new adit at Rye will be above 2,400 rupees.

† The working ore I have hitherto seen has been copper pyrites, grey copper ore, and the green carbonate I have met with, but in too inconsiderable quantity to deserve notice.

of the lodes, and how far that width is occupied by solid ore, or how much it is intermixed with spar, talc and other matters.* Also, on the continuity of branches of ore to a reasonable extent, or, on the other hand, in their being short and occurring at considerable intervals.

Again, the character of the lodes will have to be described,—whether beds conforming with the stratification of the country, or veins traversing the same. Whether numerous, parallel to each other, or crossing. What their direction usually is by the compass. Whether vertical, or at what angle they deviate from being vertical. Whether they are rich at particular places, as where the veins intersect each other. What is the character of the mineral matter, filling the lode where ore is deficient. Whether this character is different, when near the surface, or when observed at greater depths. What proportion of the lode appears to be metalliferous, and what barren.

### *Facilities for Working.*

Many considerations come under this head,—character and habits of the natives,—rate of payment for labor,—state of roads and means of transport,—supply of timber and other articles required,—means of drainage, such as leads for obtaining adits,—falls of water for machinery,—streams whether constant and sufficient. As no mining operations, upon an extended scale can be carried on without a command of cheap and good iron, I shall next advert to the mines and manufacture of this metal, and point out the peculiar advantages possessed by these mountains, over other parts of India, for improvements in that valuable branch of the natural resources of the country.

*September*, 1838.

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* In the western pergunnahs, Captain HERBERT in his Geological report particularizes grey, purple, and vitreous copper ore.

# ACCOUNT

OF THE EXPERIMENT CARRIED ON AT THE

# POKREE COPPER MINE, GURHWAL,

UNDER Mr. WILKIN,

WITH NOTICES OF OTHER COPPER MINES IN THAT DISTRICT.

BY

G. T. LUSHINGTON, ESQ.

*Commissioner of Kumaon.*

*(From the Journal of Asiatic Society, Vol. XII., Page 484).*

In the 83rd No. of the *Journal of the Asiatic Society,* is an account, by Captain H. Drummond of the 3rd Light Cavalry, of some of the Kumaon Copper mines visited by him; this account was drawn up agreeably to the orders of the Governor General of India, and extracts from it were published for general information. In this report Captain Drummond suggested, that with a view of obtaining more correct details than were then forthcoming, as to the advantages or otherwise, of working any one of the Kumaon or Ghurwal Copper mines under European superintendence, a certain sum should be advanced by Government for an experimental opening of such mine as might appear best suited to the object in view. This proposition received the sanction of Government in November 1838,* the sum of Rs. 2,415 was allotted from the public treasury, being the amount of an estimate submitted by Captain Drummond, and the charge of the experiment was assigned to Mr. Wilkin, an intelligent and respectable Cornish mining assistant, who had accompanied Captain Drummond from England. Mr. Wilkin's personal salary was at the same time fixed at Rs. 150 per mensem by orders of the Governor General.

Pokree mine selected as the scene of operations.

The mine selected, agreeably to Captain Drummond's and Mr. Wilkin's opinion as the scene of operations is situated near the village of Pokree, pergunnah Nagpoor,

* Letter from the Secretary to Government to the Commissioner of Kumaon, dated 26th November 1838.

varied at different seasons. It appears to have been smallest during the rains when frequent "break-downs" took place in the mines, and at other seasons the hardness of the ground and scarcity of workmen prevented much progress being made. The total amount of work, according to the returns sent in by the assistant, and expenditure incurred in making them is as follows:

| | | Fathoms. | Feet. | Inches. | Rs. | A. | P. |
|---|---|---|---|---|---|---|---|
| Progress in | December, 1838... | 0 | 0 | 0 | 41 | 11 | 9 |
| ,, | January 1839,.... | 17 | 0 | 0 | 153 | 9 | 0 |
| Rajah's mine. ,, | February,..... | 12 | 0 | 0 | 136 | 2 | 0 |
| Chowmuttee ditto. ,, | March,..... | 10 | 0 | 0 | 125 | 0 | 0 |
| ,, | April, ..... | 10 | 1 | 6 | *213 | 4 | 0 |
| ,, | May, ..... | 8 | 4 | 0 | 127 | 1 | 10 |
| ,, | June, ..... | 1 | 3 | 0 | 130 | 14 | 0 |
| ,, | July, ..... | 4 | 3 | 0 | 80 | 9 | 0 |
| ,, | August, ..... | 3 | 2 | 0 | 73 | 8 | 0 |
| ,, | September, ..... | 2 | 0 | 0 | 120 | 4 | 8 |
| ,, | October, ..... | 8 | 1 | 7 | 135 | 15 | 4 |
| ,, | November, ..... | 11 | 3 | 0 | 141 | 2 | 8 |
| ,, | December, ..... | 13 | 4 | 0 | 112 | 5 | 0 |
| | Total,.. | 106 | 3 | 1 | 1594 | 7 | 3 |
| ,, | January 1840..... | 13 | 3 | 6 | 151 | 13 | 10 |
| ,, | February,..... | 11 | 0 | 0 | 113 | 10 | 6 |
| ,, | March,..... | 11 | 0 | 0 | 160 | 12 | 0 |
| ,, | April, ..... | 19 | 5 | 2 | 162 | 10 | 3 |
| ,, | May, ..... | 19 | 4 | 9 | 103 | 5 | 10 |
| ,, | June, ..... | 3 | 1 | 0 | 54 | 10 | 6 |
| Operations suspended and repairs made to frames, | July, ..... | 0 | 0 | 0 | 56 | 15 | 0 |
| Ditto ditto, In this month the adit, Chowmuttee adit, broke down at 40 fathoms from the entrance and was partially secured, | August, ..... | 0 | 0 | 0 | 17 | 6 | 0 |
| (Same remark), ..... | September, ..... | 0 | 0 | 0 | 16 | 5 | 0 |
| Chowmuttee adit re-opened and partly repaired, and new ground excavated to the extent of, | October, ..... | 2 | 0 | 0 | 42 | 5 | 0 |
| Repairs completed and in new ground adit driven, | November, ..... | 0 | 3 | 0 | 96 | 2 | 0 |
| | Total, .. | 190 | 4 | 6 | 2600 | 5 | 4 |

* In this is included 60 to 70 rupees for carriage of materials from the Delhie magazine.

The amount originally authorized by Government having by the end of November 1840, been expended, a reference was made to the Hon'ble the Lieutenant Governor, as to the propriety of continuing the workings, and the point having been submitted for the consideration of the Right Hon'ble the Governor General, it was resolved, that a further sum of Rs. 1,000 should be advanced for the prosecution of the experiment in the Chowmuttee mine alone. Mr. Wilkin's personal salary of Rs. 150 was also sanctioned for nine months further, commencing with October 1840 and ending with June 1841.

I annex a table of progress and expenditure for the above period, *i. e.* from December 1840 till the end of June 1841, when operations finally ceased :

| | *Fathoms.* | *Feet.* | *Inches.* | *Rs.* | *A.* | *P.* |
|---|---|---|---|---|---|---|
| Progress in December 1840,.. | 7 | 1 | 0 | 74 | 9 | 0 |
| ,, January 1841, .. | 8 | 0 | 0 | 87 | 14 | 0 |
| ,, February,..... | 14 | 0 | 0 | 86 | 4 | 6 |
| ,, March,..... .. | 11 | 0 | 0 | 120 | 4 | 0 |
| ,, April, ..... | 5 | 3 | 0 | 105 | 6 | |
| ,, May, ..... | 12 | 2 | 0 | 125 | 6 | 3 |
| ,, June, ..... | 8 | 5 | 5 | 164 | 4 | 1 |
| Total, .... | 65 | 11 | 5 | 763 | 15 | 10 |
| Add former workings, .. .. .. | 190 | 4 | 6 | 2600 | 5 | 4 |
| Grand Total, .... | 257 | 3 | 11 | 3361 | 5 | 2 |

The workings above specified were carried on in three different mines, two of which had been worked in the time of the Hindoo Rajahs, and one was entirely new. The names of the two old mines reopened, and worked by Mr. Wilkin were: 1st, the Chowmuttee; 2nd, the Rajah's mine; and the following account of the mines and operations carried on in them is contained in a report from Mr. Wilkin, dated July 1841, and which as it also conveys interesting information concerning other Gurhwal mines, I may be excused for quoting almost entire.

Chowmuttee mines.

"The Chowmuttee mine at Pokree, is situated in talc which rests on dolomitic limestone. It was adopted for the Government experiment, as the one in which ores were most likely to be found near the surface, where the experiment would be least likely to interfere, with the revenue, and where the inhabitants were most favorable to the introduction of a new system. The experiment was commenced at the end of 1838, and has been continued to the present time. During this period, an adit has been driven into the mine on the course of the lode 77 fathoms 0 feet, 8 inches, and an under-lying shaft was sunk on it at 28 fathoms from the entrance; a cross-cut has been driven north from this shaft 20 fathoms, 4 feet, 0 inch through dolomite quartz, and talcose schist; but without finding any new lode, excepting a small bed of iron ore. A rise of 7 fathoms was driven up from the adit at 61 fathoms from the entrance, and a diagonal shaft was sunk to meet the rise from whence a gallery has been extended eastward over the adit 19 fathoms, 2 feet, 4 inches, of which 8 fathoms, 5 feet, 0 inch is in poor ground; 4 fathoms, 0 feet, 0 inch in old workings, and 6 fathoms, 3 feet, 4 inches in ground, which in Cornwall would be worked for one-third of the ores. Of the adit, 5 fathoms, 3 feet, 0 inch were in old-workings; 42 fathoms, 4 feet, 2 inches in ground that would on an average let for one-half tribute, and 16 fathoms, 2 feet, 6 inches in ground that would not pay for working, besides 12 fathoms, 3 feet, 0 inch of the outer part of the adit, in which no ores were found; very little ores have been left visible in the bottom of the adit or the eastern end of the mine, but the mine may improve if sunk deeper or extended further; however, I should prefer working the western part of the mine, where the lode is wider, and the ores of better quantity. A ventilating passage was carried forward over the adit from the first mentioned shaft to the rise, and a winse was sunk under the adit 3 fathoms; besides which, other excavations, amounting to about 20 fathoms of ground were made, and conveniences for cleaning ores, workshops, &c., have been built. The expense incurred by this part of the experiment (omitting European superintendence) has been Rs. 2,816-8-9, and the return of copper is Rs. 231-4-4, besides Rs. 3 to 400, which may be expected from ores yet unsold. The roof of the adit now offers a good field for tributers, and if worked on a proper scale, it may repay the expense which has been incurred in driving it; but it is not likely to do so without machinery for cleaning and smelting the ores, which generally contain only 2 or 3 per cent. of metalliferous ores, or from $\frac{1}{4}$ to $\frac{3}{4}$ per cent. of copper.

"The Chowmuttee lode, after crossing the ridge east of the mine, enters a very compact bason, in which is situated the Dooined mine; this mine has not been worked to any considerable extent, owing to the abundance of water, and softness of the talc; but it is said to have a good lode in one part of it, the lode then crosses the hill near Deothan, a small village above the mine, and is found near Googlee and Keswarra, where I have seen ores extracted from it; but I do not think it likely to be profitable on that side of the hill.

Rajah's mine.

"The Rajah's mine is situated about 450 yards north of the Chowmuttee mine in common dolomite, which rests on talcose schist. It seems to have been discovered by the outcrop of copper in the precipice above the Pokree village, and to have been followed down to a depth of 70 fathoms, at which level an adit was brought into the mine, which must have been driven 100 fathoms through dead ground (*i. e.*, in which no ores are found,) ere it reached the copper formation; how far it had been driven beyond that cannot be ascertained, but the old miners state it to be a considerable length. There are other adits, by which the mine was worked previous to the bringing in of the deep adit, and the next one above it is said to have been the principal entrance by which the ores were brought out. At the time when the adits fell together, which occurred about 60 years ago, there were three places in which ores were found; namely, the Gaja Chauk, Kumera Chauk, and the Burtwal Kooa; the Gaja Chauk was entered at the level of the deep adit, and worked on so large a scale, as to require timber 20 feet long to support the roof, and finally it became so large, that the miners contented themselves with picking up, at the risk of their lives, the ores that fell down from the roof, until it all fell in together. The Burtwal Kooa was probably on the same lode as the Gaja Chauk, under the level of the adit. The Kumera Chauk was probably on another lode (Kumera being the name for talc,) the ores of that lode being muddy and requiring to be washed. The produce of the mine at the utmost is said to have been 300 seers of ores, worth 25 per cent. of copper per day, of which the Rajah claimed two-thirds, and the remainder was shared by the laborers, who also held lands free of rent. This was the best mine in the province, and the old inhabitants of Pokree always spoke of it as a place of great riches. The adit was allowed to fall together during a dispute between Rajah Sackrit and his brothers, and though an attempt was afterwards made to open a new adit near the old one, it was never completed. On my arrival here, I commenced open-

ing the second adit, (*i. e.* the one next above the deep one,) but found it too expensive for the limited means at my disposal; and it was abandoned after being opened and secured with timber 31 fathoms, 1 foot, 6 inches, at an expense including native superintendence and materials of Rs. 316-12-8. To open the mine properly, both adits should be repaired, and two new shafts sunk from the surface into the mine, which would cost about Rs. 4,000, and it would be necessary for the proper working of the mine. No information can be obtained as to the number of lodes in this mine, but I think there are three, on the north one of which the new mine is situated, about 60 fathoms north-west of the Rajah's mine."

New mine.

"In the new mine the lode was very promising and yielded good specimens of ore near the surface, but at a depth of 15 fathoms it became poor, and was consequently abandoned, after being extended 23 fathoms, 3 feet, 0 inch, at an expense, including native superintendence and materials of Rs. 245-11-0."

In addition to the above three mines, in which Mr. Wilkin's operations were carried on, there are several other copper mines in the vicinity of Pokree, some of which were worked in former times by the native miners, and some again have never been tried. None of these were attempted by Mr. Wilkin, but I find on his report the following notices of them, and as the opinion of the practical miner must be infinitely more valuable and satisfactory than any remarks that I could offer, I consider it right to extract them.

Nota mine.

"Nota mine is situated about two and a half miles north-west of the Pokree mines in talc, which rests on dolomite limestone. The lode is a bed of yellow or buff colored talc, about four feet wide, dipping nort-west at 50°; it rests immediately on the dolomite limestone, and has a sulphuric effervescence on the surface. This mine is said to have been rich; it is situated on the western side of an extensive bason or valley, on the eastern side of which ores have been turned up by the plough, but no mine has been worked. This is an extensive field for mining as the lode may be productive throughout the bason or valley. There is wood and water for all purposes near this mine.

Thala mine.

"The Thala mine is situated about a mile north-west of the Nota mine, probably on the same lode, in an extensive plain, or compara-

tively level surface. It was first worked in 1810, and again in 1825; but there being no good facility for adits, the water prevented its being worked to any considerable depth. The miners who worked it state the ores to be copper pyrites disseminated in a lode of two feet wide, one-fifth of which was metalliferous. An adit of 50 fathoms in length would reach the mine 10 fathoms below the surface; below this adit a machine might be erected, which with the surface water and that of the mine would continue to work throughout the year, and keep the water of the mine to a considerable depth. There is plenty of wood for all purposes in the neighbourhood of this mine.

Danda mine.

" The Danda* mine is situated on the hill, about 500 yards above Thala mine in chlorite slate and talc, which on the north-western side comes in contact with common dolomite. This mine has been worked in a considerable extent, and is said to have yielded Rs. 52,000 profit in one year. The ores are of good quality, and found in three or four different beds or lodes, which dip into the hill at an angle of 30°. The chlorite slate, in which the beds of talc and ores are found is so hard as to stand without timber, it also contains finely disseminated copper in small quantity. The lodes run into a fine fall or bason westward, in which I think, they would be found productive. There is abundance of wood near this mine; but no water for machinery nearer than the Thala mine.

Talapoongla mine.

" The Talapoongla mine is situated about a mile north-east of the Danda mine in talc, which rests on dolomite limestone. The strata, in which the ores are found, is about 6 fathoms wide, dipping south-west at various angles. The bed is extensive, but the ores are scarce; however this might improve at a distance from the surface; hitherto little has been done, except washing away the strata during the rainy season. It has good facilities for wood, water and adits. Ores have been found in a precipice, east of this mine, near the village of Bungtul, but at present the outcrop is covered with rubbish; it is in the talcose formation, and has good facilities for working.

Khurna mine.

" The Khurna mine is situated in the ravine below Bungtul, near its junction with the Nugol river in talc; it was discovered by the water of the ravine washing away the strata, and leaving a

* A ridge or crest of a hill is called Danda in the hill language, and this mine being on the ridge, gets the above name.

quantity of ores exposed to view; these ores were taken away by the Pokree miners, and the mine worked 5 or 6 fathoms under the surface, beyond which they were prevented from going by the water. They tell me that the lode at the bottom of the mine for 2 fathoms in length is one foot wide, of solid copper pyrites. Of late years, nothing has been done at this mine beyond washing among the surface, which contains a small quantity of copper pyrites. There is plenty of wood in the neighbourhood of this mine, and water for machinery, but no facility for adits."

Such is the account given by Mr. Wilkin of the copper mines at, and in the vicinity of Pokree, the whole of which he has repeatedly visited and examined, as far as the nature of the ground would permit. Of other copper mines situated in the Gurhwal district, the most celebrated are the Dhunpoor* and Dhobree mines, the former being on the north, the latter on the south side of the Dhunpoor chain of mountains. This chain rising to an altitude of 9,500 feet above the sea is on the south or left bank of the Aluknunda river, directly opposite to the Pokree hills, and to the great Himalayan chain, covered with eternal snow. The view from the crest of the Dhunpoor ridge is beyond description beautiful and majestic. The great castellated peaks of Budrinath rise directly in front of the spectator, and on either side of these as far as the eye can reach, appears a long succession of other snowy peaks ranging in form and altitude: but all and each surpassingly grand and sublime. No view that I know of in Switzerland, equals this in vastness and extent; and in altitude the peaks of Gungotri, Kedarnath, and Rudrinath to the left, of Trisool, Nundadevi, Purychoola, and Kylas to the right fully merit the title bestowed upon them by the Shastra,† of "Mountain Kings."

Dhunpoor mine.

Mr. Wilkin reports, that "the Dhunpoor mine is situated on the north side of a high‡ and precipitous range in compact dolomite." The ores of this mine are principally copper pyrites and grey or vitreous

* These mines are leased to a farmer at the sum of Rs. 1,900 per annum. Some villages are attached to the mine, and the land revenue derivable from them is included in the above. It would amount to about Rs. 200 per annum as a separate item. The inhabitants of the villages work in the mines, and receive a share of the produce; they are what Mr. Wilkin calls "tributers."

† Captain Webb gives the following altitude of the Dhunpoor village, 7,956 feet; the mine is a few hundred feet higher, and the ridge above the mine in some places is rated at 9,500 feet above the sea.

‡ The repeated allusions to the great Himalayan chain in the sacred books of the Hindoos are too well known to require quoting. The names assigned to some of the peaks are, I think, appropriate and poetical; such as Kirda-nath, lord of water, Roodra-nath, lord of the Roodras or demi-gods.

copper ore with the red oxide and green carbonate in smaller quantities: the latter being scarce. The ores are found in a bed, (or channel of ground fifty or sixty feet wide,) which runs nearly north and south, and under lies east about one foot in the fathom. It is divided by a bed of potstone, or indurated talc, which runs through the copper formation longitudinally, conforming to the strata, and having a frith or *flukan* on the western side.

"This lode of potstone will facilitate the driving of passages into the mine, and it is sometimes productive; but the greater part of the ores are found in the adjoining rock in seams and branches, which cross it in every direction. The seams of ore are said to be one foot thick at times, but generally they are less than one inch thick, and any thing more than that is considered a prize by the miners. When I visited the mine in 1838, the best seam or vein which I saw was not more than half an inch thick; but on my last visit in 1841, I saw one two inches thick, and I was informed that it had been one foot thick during the interval between my visits. It is perpendicular and cut out at the bottom of the working by a horizontal vein which carried it eastward; the ores are mostly within one foot of the horizontal vein, above which it dwindles away to the size of a reed. All the other places which I saw, were poor in comparison to this. The ores are the softest part of the rock, and are consequently dug out first, after which the miners burn the rock with wood and then throw water on it. Owing to the calcareous nature of the rock, this process facilitates the work considerably; but still I think blasting would be cheaper, as the burning does not penetrate beyond a few inches in the rock, and the passages are consequently small, except when two or more veins meet. The veins are so numerous, that the rocks between them are seldom more than 3 or 4 feet thick, so that it would certainly be better to have a large working, which would include a number of veins, than to work on the present diminutive scale. The mine is so full of rubbish, that it is difficult to get through the passages, for nothing is brought out of the mine but the ores and the rubbish being left within, fills up the mine and impedes its future working. At the present lowest working of the mine, there is a commodious passage on the claystone lode, 60 fathoms in length, but the outer 20 fathoms has crushed together; below the inner end of this passage, there is an extensive old working, which is said to be rich, but the present generation of miners have never been able to get the water out of it; beyond this, the mine has been worked to a considerable extent, but the passages were

so full of rubbish, that I could not go into them. An attempt was made to bring in a new adit to drain the mine to a deeper level than at present, previous to the Ghoorkha rule; but after being driven 15 fathoms, it was abandoned owing to the ores in the mine failing, and the laborers being sent to the Nagpoor (*i. e.* Pokree) mines, which were then rich. No attempt has been made since then to drain the mine below the level here spoken of. The lessee informed me, that he formerly realized from three to four thousand rupees per annum from this mine, but that lately, the profits have been very small. I am unable to give a correct section of this mine, but the following will convey a tolerable idea of its leading passages, and the rest may be considered a perfect honeycomb from entrance to end.*

"There is water for machinery in the ravine below the mine. Wood for all purposes is rather distant, but owing to the supply of labor, charcoal is cheaper here than at Pokree, where the wood is nearer. The smelters at this mine are very industrious and expert at their work, and their mode of smelting is superior to any other in the province, excepting the Dhobree people, who work on the same principles, using abundance of decomposed felspar limestone flux.

"The Dhobree mine is situated on the south side of the Dhunpoor range, in very nearly the same kind of rock as the Dhunpoor mine; but in this mine, most of the veins are horizontal, running along the side of the hill. At the surface they are very small, containing oxide of iron and green stains of copper, and occasionally copper pyrites. The present working mine is not extended very far from the outside of the precipice or surface, the ores being much the same near the surface as at a distance from it. When the miners find their passages growing long and tedious, they begin outside on a new vein. There are several old mines, west of the Dhobree village; on entering one of them, I found it very extensive, the ores seem to have been most abundant where the horizontal vein was crossed by perpendicular ores; but as far as I went, the whole of the horizontal vein had been taken away, and after crawling to a considerable length, I was obliged to return for want of torches. I got a small specimen of ore from one of the perpendicular veins, of which there were two or three running south-east and north-east. The western one of these veins is said to have been very

Dohbree mine.

* As there is nothing of interest in this sketch we have omitted to copy it.

rich, but it fell in about the time* the Ghoorkhas entered the province, and has not been opened since. The ores of these mines are principally copper pyrites, worth about 25 per cent. of copper.

"There is water for machinery about a mile and a half below the mine, and wood for all purposes near that place. There is another mine on this range at Molghirree; it is rented at Rs. 25 per annum, and said to be in the same rock as the Dhobree mine. There are other mines of both copper and iron in Dhunpoor, but none of them are worked, nor have I seen them."

Results of Pokree experiment.

From the following memorandum it will be seen that the experiment conducted by Mr. Wilkin has entirely failed, as far as a profitable return for capital expended is concerned.

*Memorandum of expenditure on account of the Government experiment at Pokree.*

| | | | | | | |
|---|---|---|---|---|---|---|
| Paid to Mr. Wilkin from the Almorah Treasury, Rs., | | | | 3215 | 0 | 0 |
| Expended in working the mine as per monthly statements, ..... Rs., | 3364 | 5 | 2 | | | |
| In which is included value of copper sold by Mr. Wilkin and carried to account, amounting to Rs. | 149 | 5 | 2 | | | |
| Total expense to Government, .... | | | | 3215 | 0 | 0 |
| Deduct value of copper sold and paid into Treasury, | 272 | 3 | 3 | | | |
| Ditto of copper sold, but not yet realized,..... | 358 | 0 | 0 | | | |
| | | | | 630 | 3 | 3 |
| So that when this last item has been realized, the account will stand thus: Expended, .... | | | | 3215 | 0 | 0 |
| Returns, ..... | | | | 630 | 3 | 3 |
| Balance against the experiment,..... | | | | 2584 | 12 | 9 |
| Exclusive of the cost of European superintendence at the rate of Rs. 150 per month for 32 months... | | | | 4800 | 0 | 0 |
| Total, .... | | | | 7384 | 0 | 0 |

This result is in my opinion to be attributed solely to the poorness† and scarcity of ores found, and not in the least to any want of skill, zeal, or patience on the part of Mr. Wilkin, of whose intelligence, activity and trustworthiness I have a very high opinion, and every mining undertaking is, after all, more or less a lottery. In this particular instance, every thing has

* 1790.

† Poor, with reference to the means of smelting.

I conscientiously believe, been done that was practicable with reference to the means placed at the Superintendent's disposal, and if the result has been a failure, it cannot in fairness be attributed to him. If it be urged, that the fact of the Rajah's and Chowmuttee mines having been worked in former times ought to have suggested the probability of the lode being exhausted, it should not on the other hand be forgotten, that the sum placed by Government at Mr. Wilkin's disposal was not sufficient to warrant his devoting the whole of it to a new mine, which after all might have proved equally barren as these. Native accounts represented these mines to have been rich and productive at the period of their abandonment, and the miners of the place still hold to this belief. Nor was it in the first instance suspected, that the mine had been so far penetrated into as has been proved. Taking these points into consideration, I see no reason for believing that course adopted was injudicious.

States that he cannot recommend further experiments.

The failure of this undertaking renders it impossible for me to record an opinion in favor of fresh experiments being made under European superintendence at Pokree; I fear no such experiment could pay at that place, and with regard to the copper mines of the province generally I have reluctantly come to the opinion, that they do not present a fair field for the employment of capital on the following grounds:

1st. The great distance of the Pokree and other copper mines of Gurhwal from the markets to which their produce would have to be brought.* 2nd. The absence of water carriage, and slowness and expense of carrying articles of bulk in a country like Gurhwal. 3rd. The non-existence of coal and the cheapness of English copper, carried as it is entirely by water to the great commercial towns of upper India. The above circumstances would, I apprehend, be insuperable obstacles to the success of any speculation of the kind. For supposing

* The copper mines of Kumaon Proper at Seera and Gungolee for instance are also, all situated far in the interior of the mountains. The talcose and calcareous formations in which the ores are found, occupy the high precipitous mountains which (in this province at least) separate the mica slate, gneiss, and not unfrequently granite of the central hills from the similar rocks which build up the buttresses and compose the peaks of the great Himalayan chain. This mighty chain itself appears to be partially metalliferous, judging from the lead mines at Ghertee (now waste) between Meelum and Neetee, the copper indications at Tola and elsewhere in the Jowahir pass, and the ores of the latter metal and of iron actually found and worked at and about *Polar* in the immediate neighbourhood of Roodurnath, one of the snowy shrines between Kedarnath and Rudrinath.

even that a rich and abundant copper mine should hereafter be discovered, and that by European superintendence and the aid of machinery, great improvements were made in every process of mining,* and the price of the article (which now sells at the door of the mine at a dearer† rate than English copper does in the plains,) were to be greatly reduced, I still think, that the cost of transporting it to a good market would absorb all returns, or leave little profit to the speculator—further that this profit would be in the course of a few years (if operations were carried on to a large extent) cease, and the works be abandoned owing to the non-existence of coal. This is not a mere conjectural hypothesis, but rests on what has already occurred, and will again occur in this district. Even under the present petty system of operations, many mines have been abandoned from this cause. The following is an instance of the kind. In the valley of Khetsaree, the northern extremity of which forms the boundary between Kumaon and Ghurwal, iron ore of a good quality is found in great abundance, and many mines have at different times been worked by the native miners, who resort thither annually from the eastern pergunnahs. At present, the chief supply of iron in Kumaon is from these mines, yet although the total quantity produced would with reference to the gigantic scale of English transactions appear perfectly ludicrous, the valley has notwithstanding become nearly denuded of trees, and it is only by shifting about to new sites, less removed from the forest, that operations are now carried on. The extensive pine woods of the Doorgadhee and Jowrasee range, even at the distance of five and six miles from the mines, are now beginning to experience indiscriminate havoc at the hands of the charcoal burners, who cut down and leave to rot on the ground thousands of fine trees, merely consuming the smaller branches, (to save themselves the trouble of splitting the large trunks,) while no provision is made for the renewal of the forest.

As compared with the Pokree and other mining localities of Gurhwal, the Khetsaree valley is in many respects favorably

* The washing and smelting of rich ores under the native system costs 50 per cent : poor ores do not pay.

† Wrought copper sells in the hills at 1 rupee 12 annas to 2 rupees per seer, equivalent to 70 to 80 rupees per maund. English copper can now be bought at *Almorah* at a less price than the hill copper, the *present* price of the former being 1 rupee 10 annas per seer, of the latter 1 rupee 12 annas to 2 rupees.

By recent quotations, the price of imported copper at Calcutta is shewn to be as follows ; viz :

| | | | | | | |
|---|---|---|---|---|---|---|
| Sheathing, per factory maund, | 36 | 12 | to | 38 | 0 | Sicca Rupees. |
| Braziers, | 36 | 0 | to | 0 | 0 | ,, |
| Old Copper, | 37 | 8 | to | 37 | 12 | ,, |

situated, being four days nearer to Chilkea, to which mart the route is almost entirely through a level country, and bisected by the Ramgunga river, the power of which, and some of its nearer affluents, would be ample for every kind of machinery. Limestone too exists in great plenty, and in skilful hands would doubtless be turned into large use in the reducing processes. The climate however, in the valley itself, is unsuited to the European constitution, and until the last few years during which its surface has been gradually drained, and brought under tillage, it was considered scarcely habitable to natives. But as the surrounding heights afford salubrious sites for residence, and as population is fast increasing in the valley, an experiment would in all probability succeed at Khetsaree, if to its other advantages could be added a sufficiency of fuel; but the forest is rapidly disappearing, and burnable coal is as yet unknown. It is true, many *indications* of the latter fossil have been found in the sub-Himalayan ranges, as for instance at the Bullea bridge, between Bheemtal and Bhoumouree, and in the streams which issue from the hill north of Nujeebabad; yet the few poor and immediately exhausted seams of lignite here and there discoverable in the sandstone strata, and upheaved debris of the Sewalies between the Jumna and Ganges, and again between Hurdwar and Bhoumouree, would seem, if *shewing any thing* rather to point to carboniferous beds buried far beneath the base of the lower ranges, than to hold out hopes of their existence near the surface of the secondary rocks, or among the primary formations, where the iron and copper ores are developed.

If happily and unexpectedly, real coal, fit for consumption, and in sufficient quantities, should hereafter be found in the strata opened to view by the Bullea and other streams issuing from the southern face of the Ghagur mountains, or by the Kosilla and Ramgunga in the lower part of their course, the iron mines of Ramghur now second in importance to Khetsaree, would become of great value; the noble steppes of the Ghaghur would be spared from the denudation which now threatens them; and as the intermediate country is easy, and opposes few obstacles to the formation of roads, the mines of Khetsaree would share in the benefits of the discovery.

I have thus enumerated the great obstacles to the success of any mining enterprise of the kind under discussion. On the other hand, there are some considerations to which I proved to advert, which might at first sight appear to warrant a contrary conclusion. I first allude to the possibility

of obtaining a sufficient supply of labor; and secondly, to the character of the people. 1st. With regard to labor; of this I think the supply would be found to be sufficient at the rate of 2* to 4 annas per diem, as none of the hill men appear to have any objection to working in the mines as laborers. The mining or Aguree caste is, it is true, one of the lowest, but Brahmins, Rajpoots and Khasyas do not object to work as laborers in the mines. I have seen all of the above castes working under Mr. Wilkin at Pokree of their own free will, and have myself often employed them when in the district (also of their own free will) in duties which in the plains, are usually performed by coolees; such as digging, cutting wood, fetching materials for building, &c. 2ndly. With regard to habit and disposition of the people, the natives of Pokree, and generally speaking, of Ghurwal, are docile, good-humored and willing, inferior in point of physical strength to the European, but still capable of performing a very fair amount of work, if well looked after. In common with most Hindoos, they possess the great virtue of sobriety, and for honesty, are remarkable. Nor are they long in acquiring the use of European tools, even of the pit-saw, the manner of working which is so repugnant to native ideas of ease and convenience. With regard to crime, I may state, that robbery, murder and generally speaking, all heinous offences, are rare in Ghurwal. I know not how it is whether it be owing to the nature of the country, the scantiness of the population, to amiability of temper, or want of energy† and spirit; but this fact is certain, that violence and a recourse to bloodshed seem to be almost unknown. If two Ghurwalees quarrel, they seldom proceed to blows, or should a fight actually take place, it is not of that sanguinary and reckless kind which occurs so frequently in England and elsewhere; such are the bright traits of the Ghurwalee character. On the other hand, they are credulous, ignorant and superstitious to a degree; believing in ghosts, the evil-eye and witchcraft, and by no means remarkable for a love or practice of truth, where they consider it their interest to speak falsely. Still on the whole, weighing the good against the bad, I have often been struck by the many excellencies of their character, and strange though the statement may appear to be, I have at times felt inclined to believe, that compared with

* Two annas per diem is the usual rate of hire, but to ensure a constant supply it would probably be found necessary to raise it to 3 or 4 annas.

† I do not think the Ghurwalees are wanting in courage, and believe they have proved themselves efficient as sipahees in Cabool, where many of them are serving in H. M. Shah Soojah's force.

similar classes of our own country, with all its boasted knowledge and civilization, they would present as many points for approbation as the latter.

I will conclude this report by shortly summing up what I take to be circumstances *for* and *against* the success of any mining speculation in this province. The obstacles are: 1st, distance of the mines from the low country; 2ndly, slowness and expense of carriage; 3rdly, cheapness and abundance of English copper; 4thly, superficiality of the mines yet known; and 5thly, want of coal.

The favorable points of view are: 1st, the excellence of the climate, and 2ndly, the quiet habits and tractable disposition of the people. To my judgment, the reasons urged against the employment of capital appear greatly in excess of those in its favor. If I had funds of my own lying unemployed I would not, with the knowledge I have of the circumstances of the case, invest them in any enterprize of the sort. In stating this much, I would add, that I am by no means anxious to deter others from embarking capital in a new experiment, should they, with reference to the account of progress, expenditure and returns now submitted, be of opinion, that my view of this matter is incorrect, and that different results, would have been obtained, had the expenditure, or first outlay consisted of thousands, instead of some few hundreds of pounds.

(Signed) G. T. LUSHINGTON,

*Commissioner.*

P.S.—Specimens of copper ores from the *Pokree* and all other copper mines of this province have been called for, and will be submitted when received, with names of mines, pergunnahs, &c. &c. My report of 7th June 1839, forwarded to the Secretary of Government North Western Provinces at Agra, was accompanied by Tabular Statements shewing the number of mines, and amount of revenue derived from them in Kumaon and Ghurwal, and can be referred to, if necessary.*

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* We have applied for a copy and permission to print this.—Eds.

# NOTES

ON THE

# POKREE AND DHANPOOR COPPER MINES IN GURHWAL.

BY

SIEGMUND RECKENDORF, ESQ.,

*Mining Engineer.*

*(From the Journal of Asiatic Society, Vol. XIV., Page 471).*

After the Commissioner Mr. Lushington's Report Vol. XII. *Journal Asiatic Society* 1843, little remains to be said about the situation of these mines, Pokree is on the right, Dhanpoor on the left side of the Douliganga, both about six miles horizontal distance from the river, and twelve miles between themselves. From Pokree I saw Dhanpoor distinctly, and it appeared about 1,000 to 1,500 feet higher situated. Putting the compass in h. 17 or hs. (15° E. to S., or 15° W. to N.) I had on the bearing therefore in one line—on one side the Rajah's mine, (and according to the statement of the people,) several places where the same talcose state occurs as in the Pokree mine. On the other side I had a place called Deehoor, on the road to the valley of the Gunga; and on the Dhanpoor side a place little below the village, both places containing the slate. The layer of talcose slate containing the copper ore is therefore a very extensive one, and there is every reason to believe, that the copper goes as far as the slate, and the slate as far as the formation, to which I consider the slate to belong. Indeed it requires very little attention from an eye, practised in researches after minerals, to see that the whole of the known copper mines from the Nepal Terai in the east, till beyond the Pokree mine in the west, are only parts of one layer of not very great thickness, which perhaps may have been subdivided

in two or three thinner layers, by some other oreless layers of slate or limestone now transformed into dolomite. In a country where mining is more in use and better known than in India, lakhs of rupees would have been spent upon feebler indications of ores than are here seen. When I was at Pokree there was no work going on, but two or three native women washing old heaps of nearly exhausted rubbish. The "khans" were nearly entirely broken down, that in which Mr. Wilkin put in timber, was yet open for about forty yards, but in all these very slight indications of ore, copper pyrites and blue and green carbonate. Since many hundreds or thousands of years that part of the layer has been alternately exposed to the access of air and water, and accordingly the copper pyrites has been transformed into sulphate of copper, which is dissolved and carried off by water. That process is going on still; the waters containing enough sulphate of copper to cause, by aid of Hanuman or some other old gentleman, the great wonder of metamorphizing,—*i. e.* covering—iron nails, thrown into the water with copper. The natives showed me two of these nails as perfect miracles.

It was in this part of the layer where not only the native rulers worked, but also Mr. Wilkin. The slate in it is soft like soap, and very little ore remained, partly as pyrites, partly in sulphate, partly as blue or green carbonate of copper. From Mr. Wilkin's bad success no conclusions ought to be made, or can be made. An experiment on ore from Chili or Kamtschatka would be as decisive for the riches of Pokree mine as Mr. Wilkin's was, and when I heard that a "*sahablok*" worked 2½ years at Pokree I could scarcely believe it. But I admired Mr. Wilkin's proceedings, when I saw, from Mr. Lushington's report, the means Mr. Wilkin had at his disposal, and the object of his labor. I then acquitted Mr. Wilkin of every fault of which I had accused him in my mind when I saw that, with a sum scarcely sufficient to open the spot where the ore can be hoped for and collect materials for buildings, he had to decide upon the riches of *a mine at first to be created.* The layer dips in h. 23 (15° N. to E.) The work to be commenced was, a gallery 30 or 40 fathoms below the old mines; and not the excavation of ores which are a very good addition in smelting better ores, but the smelting of which never would pay. If left to his own judgment, and having the whole sum at disposition Mr. Wilkin probably would not have produced any ore in the first year and a half at the end of which he would most probably have been able to show such specimens of ore as would extinguish every doubt on the richness of the mine;

then, and not before then, was the time to begin experiments; but also these ought to have been made in another way. Mr. Wilkin could not prepare the ore on hearths and with sieves, as undoubtedly he would have done, had there been more money at his command. Furnaces on a scientific system instead of the rough native hearths ought to be made, and these with powerful bellows put in regular motion by water-wheels instead of two goatskins moved by hand. In such fire-hearth, I saw in Dhanpoor two meltings, each continued through about four hours, and from beginning to end the flames (4 to 5 feet high and 3 to 5 feet diameter) were perfectly green from loss of metal. The natives told me that such was the case in Pokree also! This shows that,

1. The necessary preparations before the smelting could not be made.

2. That the smelting was not properly conducted, the loss being too great.*

3. That the ore used was not the ore which would be the object of mining on a large scale, it being impoverished by the slow metamorphosis of pyrites into sulphate of copper.

It must be confessed, that the Pokree mines are highly wronged by the conclusions, made from results shown by any work done till now. It could be objected against p. 3, that the presence of better ore or richer ore, is only a supposition; but it is not so! I found in the Pokree bungalow a piece of hard rock talcose slate—with a high colored pyrites of copper, taken *from the end* of Mr. Wilkin's "khan." The ore was from a place where either no water came, or where it stood constantly; but all the pyrites *from the first* 30 *or* 40 *yards* had—so said the natives—a greyish, watery color. This shows that ore in the bowels of the mountain is better preserved than on, or near the outside; consequently more ore must be there, for it cannot be supposed that an ore which for so many miles continues, and has so little thickness, should not go, with the layer in which it occurs to a considerable depth at least. Analogy with thousands of cases leads to the supposition mentioned, that in Pokree and its neighbourhood vast quantities of copper could, with

* In a high furnace a large quantity of metal offers as nearly as little surface to the wind as a small one. In a high furnace the ore is only exposed to the stream of wind at the moment of melting, but in a hearth both ore and metal are constantly exposed.

advantage, be produced. And upon observation of analogies and anomalies in nature, hundreds of valuable rules are founded, and most sciences based.

Assisted by these rules *mining is no lottery*, and not more hazardous than agriculture and manufactures.

I come now to other objections made to these mines. 1. The distance from Pokree to Almorah is *perhaps* one day's march further than Almorah from the plains, to a point where several days land carriage for the metal from the river is required. Sreenuggur is yet nearer than Almorah and even Hurdwar can easily be reached from Sreenuggur, by little flat boats steered by one man, loaded with a sufficient quantity of metal. The boats should be of a light construction, and would *as wood only* sell very well. 2. Articles of bulk are, for the beginning, not required, and should mining *become modern* in the Himalayas, roads (which however in these parts are not so very bad, as not to be passable, after very little repair, by mules, horses, and even by elephants,) will soon be made; and in a later period larger articles certainly will be manufactured *in the hills*. Iron ore is plentiful there. 3. The English copper is cheaper, because it is worse than the native copper. The natives in Sreenuggur, Teeree, Hurdwar, &c., told me, they would not use the English wrought copper, but for the great size of the plates. For smaller work they prefer Dhanpoor copper. If the lessee had any difficulty in selling the metal at two rupees, he could easily give it cheaper; but his stores are always so small, that he is sure to sell even at the higher price. From cross-examination of his mookteear, and the miners and smelters, I calculated his profits at thirty per cent., and from the unwillingness of the first to tell me more, I had reason to think that my calculation was right. I told him so, and the result of my reckoning, and how I obtained the data without the reporter's knowing it. When I had left Dhanpoor, my servant told me that the mookteear abused the work people for their betraying him, and the people were quite astonished to hear they had done so. The Commissioner, Mr. Lushington, states the way in which the charcoal burners are going on. They will cease to do this if they hear that from the trees themselves better charcoal can be obtained than from the mere branches, and should they continue the work, nothing remains for the lessee but to send his own coal burners *for working up such wood as remained from the other burners*, saving thus the outlay for cutting down the trees. The lessee would have always charcoal enough, even for a large establish-

ment, or several of them, for if the inhabitants see they can obtain a constant livelihood they will take care not to waste wood. Provision however for the renewal of the forest must always be made for the sake of future cheapness. I think too labor could be obtained cheaper than in England, even if the greater skill and bodily strength and good will of European workmen is taken in account. The old smelters in Dhanpoor may be compared with the most skilful smelters any where. I believe now to have shown the possibility (and probability) of turning to advantage the riches of Pokree; the copper could support the concurrence of the English copper in the lower hills and part of the plains, and would have advantages over it, in the higher interior, and in such places at the foot of the hills where the English product cannot reach by mere water carriage.

The Dhanpoor mines, or holes, are worked to advantage, and no doubt could be made more so; but perhaps it would take more trouble to find the layer of copper than in Pokree. What till now is opened would under European superintendence be entirely exhausted in the course of one year or two. It is possible the layer may turn out to be a regular dyke, but I suppose it will not be so, but might be cut off by slate at no very great depth. The working on a large scale would be also more expensive in Dhanpoor than in Pokree, for the ore must be stamped, and washed on *moving hearths*. However, I will not say, that Dhanpoor mine could not be made, by continued labor, a very rich one. The situation of Dobree mine on the other side of the very same hill range, admits no doubt of the ore's extension; moreover the steepness of Dhanpoor hill admits shorter galleries and to greater depth. The present mine could not of course be of any use. There are galleries of several fathoms in height and breadth, following upon and preceded by others, which are so low and narrow, as to admit only children; and the slope goes downwards, then up again for a few yards, now to the right, then to the left; &c. A shaft in the mine is only passable for those who do not mind going about in the dress of Adam on the first day of creation, for only the adhesion of the skin to the nearly polished rock, keeps the passenger in many places from falling down. The tools are only a chisel and a hammer; blasting of course ought to be introduced.

From what is above said, it will appear as my conviction, that in the copper mines of Pokree and Dhanpoor capital could most advantageously be employed, but it is not Government in my opinion who should work there. The best writers on national

economy agree, that such speculations do not thrive in the hands of a Government. If Government would give these mines to any private individual or company, for as long a period as they pay regularly a certain duty from the produce, and would allow to any one else to begin mining wherever he could find an ore, in a very short time, certainly, many places where ore is known, would be taken up, and the revenues of Government, now derived from the mines, would be very considerably increased. Districts, now nearly empty of population, void of cultivation, useless to the treasury, would yield revenue, and the population would become acquainted not alone with European luxury, but with European skill and intelligence, which be at first more useful than schools and missionary establishments. As the agriculturist prepares by ploughing the hard soil for the reception of the seed, so we may consider, the becoming acquainted with the advanced state of European arts would "plough" the *pahari's* mind for the acceptance of higher objects, which they might be thought fit for being taught in some future time.

And did not nature shew her intention of civilizing the inhabitants of these wild districts through mining, by her upheaving such mineral riches which, in their present state of civilization, they cannot appreciate?

With regard to the capital required for the opening of Pokree mine and Dhanpoor mine, I think Rs. 40 to 50,000, would be more than sufficient for both establishments, on a footing equal to the advantages which can be expected in the first result of an operation, which may be carried on through hundreds of years.

*Calcutta, September* 1845.

# REMARKS

ON THE

# REPORT OF G. T. LUSHINGTON, ESQ.,

*Commissioner of the Provinces of Gurhwal and Kumaon,*

# ON THE COPPER MINES OF POKREE,

WITH OBSERVATIONS ON THE IMPORTANCE OF ESTABLISHING

# IRON WORKS IN THE INTERIOR OF INDIA.


BY CAPTAIN HENRY DRUMMOND,

3RD REGIMENT BENGAL CAVALRY.

*Member of the Geological Society of London.*



PRINTED IN LONDON IN 1845.

THE first portion of this Pamphlet was originally intended for private circulation among parties directly interested in the subject, and to be strictly confined to a few observations on Mr. Lushington's Report. This will account for the extreme abruptness of the commencement. It has occurred to me, however, that with the addition of important information bearing upon the same subject, it might be rendered worthy the attention of those—now happily not a small number—who take an interest in developing the resources of British India, and promoting the well-being of the millions of her population.

To render my observations intelligible, it is necessary to state, that having been recommended to the Indian Government by the Home authorities, for the purpose of examining the mineral resources of Kumaon and Gurhwal, in the Himalaya range; but having no European establishment to assist me in the research, I took out, at my own expense, Mr. Wilkin, the Cornish miner referred to in these pages, whose salary was subsequently defrayed by the Government of India. I had scarcely, however, commenced these examinations, when my regiment being ordered on service with the army of the Indus, I rejoined it, and was therefore unable to superintend Mr. W.'s operations, or make any subsequent report on the subject. Mr. L.'s report was called for during my absence in Affghanistan.

With reference to my remarks on Mr. L.'s Report, I beg it may be understood, that while I am compelled to differ on many points with that gentleman, nothing is farther from my wish than to say any thing inconsistent with that sincere respect and esteem which I entertain for his high character.

# REMARKS, ETC.

As Mr. Lushington's Official Report to the Government of India, published in No. 138 of the *Journal of the Asiatic Society of Bengal*, on the copper mines of Pokree, &c., contains certain views and statements wholly opposed to mine, as explained in a previous report on the copper mines of Kumaon published in No. 83 of the same Journal; I propose in the briefest possible manner, and without further preface, to offer some remarks upon it for the consideration of the parties interested.

Page 466, Mr. Lushington observes,

"From the following memorandum it will be seen, that the experiment conducted by Mr. Wilkin has entirely failed, as far as a profitable return for the capital expended is concerned."

Mr. Lushington here uses the word "experiment" in a sense totally different from that implied in my report; I meant an *experiment as regards an opening of the ground*, not the experiment of a few hundred pounds of outlay with a view to a profitable return.

The mines had always been supposed to be rich, but this required proof; and it was expected that a practical examination of them would show that the deposits of ore were not superficial, but, from analogy in all similar formations positively increased in the *downward direction*. This is what the native miners have always assured me to be the case.

When I submitted an estimate of 2,400 rupees (£240) for a proposed new adit at the Rye mine, the said adit (as stated in my report) was required to be eighty fathoms in length, so as to *reach the lode* ten fathoms below the entrance then in use.

The whole of these eighty fathoms was accordingly to be extended through what is termed "dead ground," *i. e.* ground containing no ores, and consequently no return could be anticipated from that outlay; but if on arriving at the mineral ground the strings of ore (vide page 936, No. 83, Journal A. S. B.) were

found to lead to solid ore, or become concentrated, data as to the actual productiveness of the mine might then with certainty be obtained.

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"The failure of this undertaking renders it impossible for me to record an opinion in favor of fresh experiments, under European superintendence, being made at Pokree. I fear that no such experiment could pay at that place."

Nor would any mining engineer expect that an investigation of the kind, under the most favorable circumstances, *could* pay its expenses. No limited experiment of the kind can reasonably be expected to yield a good return, till collateral improvements take place, and the whole system of management, from first to last, undergo a total change: in other words, we must, as in Europe, excavate on the great scale, and reduce on the great scale, before we have any right to look for profitable returns.

"And with regard to the copper mines of the province generally, I have reluctantly come to the opinion that they do not present a fair field for the employment of capital, on the following grounds:—

"First,—The great distance of the Pokree and other mines in Gurhwal, from the markets to which their produce would have to be brought."

The best answer to this, is simply to look at the map, and observe how completely the whole of the markets of the north-western provinces would be commanded by copper manufactured in Kumaon and Ghurwal. If it was proposed to send the copper to Calcutta for exportation, there might be some grounds for the objection; but the mines in question are assuredly more favorably situated for supplying the Indian market, than the mines of Chili, and of Cuba.*

"Secondly.—The absence of water carriage, and the slowness and expense of carrying articles of bulk in a country like Gurhwal."

There is no water carriage in the interior of Chili, yet copper ore (not even metallic copper, there being no fuel to reduce it) is brought down from the mountains on the backs of mules, to the sea-port, at an average cost of about £2 per ton, and then shipped to Swansea, in Wales, for about £4 per ton, where it is finally smelted and sold for home consumption or exportation in the same way as English copper. This Chilian

* *The poorest native of India has his cooking utensils made of brass or copper; and the density of the population renders the demand proportionably great.*

ore contains about 30 per cent. of metal, so that 3½ tons of it brought from Chili, produce 1 ton of metallic copper at Swansea, the expense of transporting which alone will amount to about £20; to which if we add the transport of a ton of metal from Swansea to Calcutta, and thence by the Ganges to Upper India, say £5, we have a total cost of conveyance of £25.

Now the copper ore of the Himalayas, from the abundance of fuel, is smelted and sold on the spot; but the population of the hills being limited, if a large quantity of the metal were produced, the markets of the plains must be resorted to. The carriage of a ton of copper from the mines to the plains, in the present want of proper roads, will cost about £6; thus even with that disadvantage, making a difference of expense of transport in favor of the Indian copper, of no less than £19 per ton !*

Again, we have to take into account the very great difference of time. The transport of copper from the hills to the plains, as Mr. L. remarks, is slow and tedious, from the want of roads, and the present barbarous mode of conveyance by hill coolies. It occupies, however, only a few days, whereas a ton of Chilian copper brought to Swansea in the state of ore, smelted, and then re-exported to Upper India, must require ten months at least !

As regards the ore of Cuba, five to six tons are required to make one ton of metal; the freight of which to Swansea being from £3 5*s.* to £3 15*s.*, would be very little under that of Chili.

"Thirdly.—The non-existence of coal, and the cheapness of English copper, carried as it is entirely by water, to the great commercial towns of Upper India."

This latter objection (difficulty of transport) has already been considered; and as to "the non-existence of coal," when Mr. L. in a note says, English copper can now be bought at Almorah at a less price (one rupee ten annas per seer†) than the hill copper (one rupee twelve annas to two rupees per seer,) he was not, perhaps, aware of the reason, namely, that the hill copper is smelted entirely with charcoal; English is *inferior*

* *Since writing the above, I find that the ore of Chili is now chiefly reduced to the state of regulus by coals from Conception, before it leaves that country, which makes a difference in the cost of transport; somewhat above two tons being now only required to produce a ton of copper.*

† 1 *Rupee*=2 *shillings*; 16 *annas*=1 *rupee*; 1 *seer*=2 *lbs.*

from being smelted with coal, and the use of an inferior quality of ore. In April, 1843, the price of English copper was then one rupee four annas (2*s.* 6*d*) per seer, and that of hill copper one rupee ten annas, (3*s.* 3*d.*) a difference of six annas (9*d.*) A native prefers the hill copper, as he is always able to manufacture a new vessel out of old metal. On the contrary, when an English copper vessel is once worn out, it cannot, from the brittle character of the metal, be turned to the same account. The difference of price, then, does not arise from the comparative cost of production, but from the superior quality of the hill copper, which, under all the disadvantages of the present system of smelting, is so much more valuable than the English. The command of wood for charcoal which these provinces possess, seems to be quite unlimited. Probably none of the countries in Europe where charcoal is used for smelting copper and iron,—such as Sweden, Russia, Germany, &c.,—can rival the Himalaya regions for extensive forests. The rapidity of vegetation in the latter is also so great, that the renewal of the forest would take place in much less time than in any of the former.

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"The extensive pine woods of the Doorgadhee, and Jowrasse range, even at the distance of five and six miles from the mines,* are now beginning to experience indiscriminate havoc at the hands of the charcoal burners, who cut down, and leave to rot on the ground, thousands of fine trees, merely consuming the smaller branches (to save themselves the trouble of splitting the large trunks), while no provision is made for the renewal of the forest."

Mr. L.'s report was intended, I believe, to be on the capabilities of the copper not the iron mines; the ore of the former being much more valuable, could be profitably carried a great distance for the purpose of reduction; but even in regard to iron, I say there is no end to the supply of charcoal, both for it and copper. And as to the distance of *five* and *six* miles from the *iron* mines of Khetsaree, an eminent mining engineer of Scotland, who had visited the mining districts of Sweden, told me that the charcoal there was frequently transported in sledges, during the winter, distances of *thirty* miles to the *iron* furnaces. Dr. Schmidt of Vienna also informs me, that in Austria and Styria, he has seen charcoal conveyed distances of *sixty* English miles to the *iron* furnaces.

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* *The iron mines of Khetsaree.—H. D.*

The latter part of this paragraph clearly proves the great abundance of wood, for the waste described* would never take place if there was any thing like deficiency; and we must not forget that even should there be an undue destruction of timber in a few localities of the Kumaon forests (which would not take place under an improved system), there is nothing more wanted in the Province than furnace operations on a great scale, to induce a general, but well regulated cutting down of wood, which would alike prove beneficial to the climate, the soil, and particularly to the poor inhabitants, numbers of whom are annually made the prey of the tigers which infest these extensive jungles.

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"As compared with the Pokree and other mining localities of Gurhwal, the Khetsaree valley is, in many respects, favorably situated, being four days nearer to Chilkea, to which mart the route is almost entirely through a level country, and bisected by the Ramgunga river, the power of which, and some of its nearer affluents, would be ample for every kind of machinery. Limestone, too, exists in great plenty, and in skilful hands would doubtless be turned into large use in the reducing processes.

"The climate, however, in the valley itself, is unsuited to the European constitution, and until the last few years during which its surface has been gradually drained and brought under tillage, it was considered scarcely habitable for natives. But as the surrounding heights afford salubrious sites for residence, and as population is fast increasing in the valley, an experiment would in all probability succeed at Khetsaree, if to its other advantages could be added a sufficiency of fuel, but the forest is rapidly disappearing, and burnable coal is as yet unknown.

"If happily and unexpectedly real coal, fit for consumption, and in sufficient quantities, should hereafter be found in the strata open to view, by the Bullea and other streams issuing from the southern face of the Ghagur Mountains, or by the Kosilla and Ramgunga in the lower part of their course, the iron mines of Ramghur, now second in importance to Khetsaree, would become of great value; the noble steppes of the Ghagur would be spared from the denudation which now threatens them; and, as the intermediate country is easy, and opposes few obstacles to the formation of roads, the mines of Khetsaree would share in the benefits of the discovery."

It is not very clear whether in the commencement of the first of these paragraphs, copper or iron is referred to, possibly both, as the former metal is found, I believe, in the upper part of the valley, and the principal iron mines in the province are those that are worked at Khetsaree. In the second paragraph, Mr. L., waiving his objections on the score of transport, &c., admits that an experiment would, in all probability,

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* *Instead of the stems being formed into charcoal, and afterwards broken for use, as is the case in Silesia, Styria, Tyrol, &c.*

succeed at Khetsaree, if a sufficiency of fuel were found, which, as charcoal alone is required, I have already stated to be most abundant. When Mr. L. speaks of limestone as a flux, however, he evidently refers to the iron mines, and not to the copper. Now, if there be the smallest chance of such a low priced metal as iron being conveyed to the plains at a profit, what possible difficulty could exist in the carriage of so valuable a metal as copper even double or treble the distance of the other. Again with regard to Mr. L.'s theory of the possible discovery of good coal, even if that were realized, it could not be used with advantage in lieu of charcoal, as the rich iron ores of Ramghur, &c., would become contaminated with sulphur, and the iron deteriorated. The enormous supplies of charcoal which may be had in the Province will always be used with these ores for the manufacture of a superior iron; and should the discovery of coal beds such as he speculates on, ever be made, that of ironstone will be sure to accompany them (as is the case in other parts of India, and in all countries where the coal formations exist), and from that ironstone coarse iron in abundance, such as the English, might at any time be produced.

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"Superficiality of the mines yet known."

This statement of Mr. Lushington's is not borne out by the Report furnished by Mr. Wilkin; with the exception of the new mine at Pokree, which he (Mr. W.) says became poor at a depth of fifteen fathoms, his notices are all to the effect that the deposits are by no means superficial; and that if greater means had been placed at his disposal, results might have been shown, which, in the absence of those means, now remain entirely undeveloped. In illustration of this fact, the following account by Mr. W., of the Rajah's mine, the richest in the province previous to the works having fallen in, is conclusive.

"The Rajah's mine is situated about 450 yards north of the Chowmuttee mine in common dolomite, which rests on talcose schist. It seems to have been discovered by the out-crop of copper in the precipice above the Pokree village, and to have been followed down to a depth of 70 fathoms, at which level an adit was brought into the mine, which must have been driven 100 fathoms through dead ground (*i. e.* in which no ores are found) ere it reached the copper formation; how far it had been driven beyond that, cannot be ascertained, but

the old miners state it to be a considerable length. There are other adits, by which the mine was worked previous to the bringing in of the deep adit, and the next one above it is said to have been the principal entrance by which the ores were brought out. At the time when the adits fell together, which occurred about 60 years ago, there were three places in which ores were found; namely the Gajá Chauk, Kumera Chauk, and the Burtwal Kooa; the Gajá Chauk was entered at the level of the deep adit, and worked on so large a scale as to require timber 20 feet long to support the roof, and finally became so large, that the miners contented themselves with picking up, at the risk of their lives, the ores that fell down from the roof, until it all fell in together. The Burtwal Kooa was probably on the same lode as the Gajá Chauk, under the level of the adit. The Kumera Chauk was probably on another lode (Kumera being the name for talc), the ores of that lode being muddy and requiring to be washed. The produce of the mine at the utmost is said to have been 300 seers of ores, worth 25 per cent. of copper per day, of which the Rajah claimed two-thirds, and the remainder was shared by the laborers who also held land free of rent. This was the best mine in the province, and the old inhabitants of Pokree always spoke of it as a place of great riches. The adit was allowed to fall together during a dispute between Rajah Sackrit and his brothers, and though an attempt was made aftewards to open a new adit near the old one, it was never completed. On my arrival here I commenced opening the second adit (*i. e.* the one next above the deep one), but found it too expensive for the limited means at my disposal; and it was abandoned after being opened and secured with timber 31 fathoms, 1 foot, 6 inches, at an expense, including native superintendence and materials, of *Rupees* 346-12-8, (£34). To open the mine properly both adits should be repaired, and two new shafts sunk from the surface into the mine, which would cost about 4,000 *Rupees* (£400), and it would be necessary for the proper working of the mine. No information can be obtained as to the number of lodes in this mine, but I think there are three, on the north one of which the new mine is situated, about 60 fathoms north-west of the Rajah's mine."

It would, besides, be too much to infer from any of the mines as worked by the natives, that the ores, especially the richest lodes, are only found near the surface; their miserable resources in carrying off the water, necessarily confine their operations to a very limited number of fathoms where mechanical power is required. The efforts, however, made by them, under the

most disadvantageous circumstances, are sufficient to prove that the mines are known to be productive at a considerable depth, and that nothing but the want of machinery has caused them to be abandoned. "Whenever any attempt is made to go below an adit," says Mr. Wilkin, "as is the case in most, if not all the mines, the water is then raised in wooden buckets handed from one man to another, until they reach the adit into which they are emptied. In this manner six, ten, or even more men may be employed, whilst only an inferior number can be spared for excavating the ores. At the *Sheera* mine, for instance, six men are constantly engaged in lifting up the water, and there are only two at the ores; the water raised by these six men could be effected, with a hand-pump, by one man; but in order to keep the pump constantly going, two men might be required, and the remaining four added to the number of those who are excavating."

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With regard to the iron of the Himalayas, and indeed throughout India, nothing can be more rude and inefficient than the native mode of smelting; and as manual labor, to the exclusion of the mechanical powers, is applied in the processes, it necessarily follows that the iron is not only ill-manufactured, and in small quantity, but very costly. Mr. Wilkin, in 1839, bought hard iron at Pokree at the rate of 5 seers for the rupee, or £22 8*s*. per ton; soft iron, 10 seers, or £11 4*s*. per ton. In 1840-1 the latter cost £14 and £16 per ton.

It is commonly imagined, that because English iron is landed on the coast for little more than the price it realizes in England, any improvement in the native article would be attended with difficulty. But however much this may apply to the *coast*, the case is altered when English iron is transported into the interior. It then becomes greatly enhanced in price; and, from this cause, as well no doubt as the character of the metal, the demand is limited, whilst the Indian iron is in request under every disadvantage.

All the iron of England, with the exception of that of Ulverstone, is made from clay ironstone, which yields about 30 per cent. of metal, and the fuel used being coal, the sulphur combined with the latter deteriorates the iron, and malleable or wrought iron cannot be produced equal to that afforded by richer ores, and charcoal smelting. In the upper

provinces of India we have the richest iron ores, namely, the magnetic, and the different varieties of the red oxide, such as the red hematite, specular, micaceous, &c., yielding from 50 to 70 per cent. of metal, which is all in favor of the saving of fuel, and general economy.

At Ulverstone, in Lancashire, the iron ore used is the red hematite, the fuel charcoal, and a superior iron is produced, which is of great tenacity, and much used for drawing into wire; steel also is made from it for secondary purposes. When I visited these works about eight years ago, one of the iron-masters informed me that *they sent out a quantity of their iron to India.* I do not know if the suspension bridges manufactured in Calcutta be from this iron or not, but the intelligent reader will perhaps be surprised to learn, that no less than thirteen of these bridges have been sent to and erected in the province of Kumaon, about a thousand miles inland; a province, too, abounding with iron mines and inexhaustible forests, where some of the richest ores are found—for example, the red hematite, micaceous, compact red iron ore, &c.,—where limestone and other necessary articles, as well as unlimited water power, are at hand. Add to this labor at the rate of two annas (three pence) per day, the people hardy, remarkably peaceable, and well disposed, and the climate admirably adapted for the European Constitution. But this is not all; Captain Glasfurd, of the engineers, told me that when he put up the last of these, at Jula Ghat, on the Kalee Gogra river, the transport alone from Calcutta amounted to 80 rupees, or £8 per ton!

In order to enable the general reader to form a just idea of this expenditure, I request his attention to the results of an experiment carried on by an intelligent and practical mining engineer in Persia. Mr. Robertson, now manager of the Shotts Iron Works, was engaged to form an establishment, and erect blast furnaces and a foundry in that country, charcoal being the fuel used. It is sufficient in this place to say that, although he labored under many difficulties at the outset, he was, in the short space of two years, enabled to make castings for machinery, shot, shells, &c., and was in a position to undertake the manufacture of bar iron for little more than half the price of the said *cost of transport from Calcutta only,* not to speak of the original price of the metal, the freight from England, &c. I prefer, however, to quote Mr. Robertson's own words in a letter to me, dated September 25, 1845. "The present price of Scotch pig iron is £4 10*s.* per ton, and of Scotch bar £9 per

ton. While I was in Persia, Russian bar iron cost about £8 per ton, and I calculated that I could produce it for £5 per ton; in fact I offered to contract with the Persian government at this price, but they rather wished me to conduct the manufacture at their risk." It is an amusing illustration of the manner in which we avail ourselves of the resources we possess in India, that one of the suspension bridges alluded to, I am credibly informed, absolutely ran into an iron mine, from which, no doubt, materials for the entire structure might have been obtained. To the best of my recollection this happened at the Kosilla river.

As the opinions of those who are practically conversant with mining and metallurgy are justly of most weight, I shall here give some extracts of a letter from an eminent mining engineer, Mr. Bald, addressed to me some years ago in support of the views I have been advocating.

"Edinburgh, February 2, 1837.

"From Capt. Herbert's account, (published in the 18th vol. *Asiatic Researches*) the iron produced by the natives in these mountains is in very small quantity, and the process appears to be as rude as can well be imagined. It is evident that whatever quantity of the ore is submitted to the fire for reduction, a small proportional part of the iron contained in the ore is brought to the state of useful malleable iron. In the first process with the ore described by Capt. Herbert, a very crude ball of iron and scoria is produced, in which ball, scoria I apprehend predominates; besides a considerable proportion of the iron must be destroyed in the fire or absolutely burned. This crude ball of iron is then submitted to the fire by a common blacksmith, and a piece of malleable iron at last produced, which, I apprehend, must be very impure.

"I find from Capt. Herbert's paper that the country in the Himalaya district is chiefly supplied with British and Swedish iron, the original price of which must be greatly enhanced by the freight to India and the carriage to the interior.

"The following important facts are clearly established, viz:—

"There is abundance of the best and richest iron ores, wood for making charcoal, limestone or marble for a flux, common clay, if necessary, to be added thereto, and potstone, which I understand will suit for the furnace-hearths, and lining of the furnaces: added to which, I am given to understand, there are hardy workmen to be got on the spot for working the mines, which hitherto have been worked in the rudest manner.

"Here, therefore, are all the necessary materials and living principle for the production of iron, and that to any required extent, with water for a moving power. Hence, all that is now wanted is the application of scientific and practical principles for the working of the mines, the erecting and conducting the working of the blast-furnaces, with the necessary machinery combined, and the making of roads and railways to transport the iron and other metallic produce to the water carriage."

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"It strikes me that if an iron-work is begun in the Himalaya district, iron can be afforded to India at a rate lower than at present, to a great degree, and at the same time afford a large profit per ton."

* * * * * *

"If you establish iron-works as proposed, and produce cheap iron, so as to induce its general use in that populous empire, civilization and improvement will rapidly spread. With the cast-iron—engine-cylinders, pumps, conduit-pipes, and every variety of machinery and utensils for public works, and domestic use, will be formed with facility; and with the abundance of good and cheap bar-iron—the steam-engine, suitable for every purpose, and the never-tiring servant, will, I have no doubt, become common in India, and, ere long, the produce of the country will be transported from one part to another as it were upon the wings of the wind. In conclusion, I consider the establishment of iron-works in the Himalaya district as the basis of great superstructures of various kinds, and that they will directly aid the working of all the other metallic veins found in that country.

"It is evident that the fabrique of steel will follow that of iron, and may we not hope that from such materials, which, by all accounts, are the very best, a very superior steel may be produced?"

The following is a letter from Mr. Robertson on the same subject:—

"Shotts Iron-Works, Whitburn.

"20th May, 1845.

"My dear Sir,

"I feel much interest in your plans for developing the mineral resources of India, perhaps the deeper from having been myself engaged in a similar undertaking some years ago; and if my views or experience can be of any use to you, be assured they are most cheerfully afforded.

"Having carefully perused your notes, and read with attention Captain Herbert's description of the mineral wealth of the Himalaya mountains, I have no hesitation in stating my opinion that such a district holds out the fairest prospects of success in the settlement of a mining colony.

"I need not urge upon you the great importance of the object you have in view, nor express any opinion as to the duty of the Indian Government to assist in maturing such a plan; as it must be evident to all, that the commercial resources, moral standing, and national stability of our Eastern empire, must be greatly increased by the encouragement of a proper system of permanent British colonization in a healthy district of India.

"Looking upon the Himalayan range existing at present as an extensive and almost unexplored district, teeming with mineral riches, possessing exuberant stores of vegetable fuel, ample water-power for driving machinery, and blessed with a most salubrious climate, it appears in every way suited for the establishment of a normal engineering and mining colony, which will, no doubt, in future years, spread around, and ramify its off-shoots to every district where enterprise has a chance of success.

"As iron is the great instrument by which every thing excellent in art and commerce is achieved, it is of the utmost importance that its manufacture be in the first place particularly attended to; and whenever this department is in a fair state of forwardness, the transition is easy and natural to the other more lucrative, though more difficult manufactures which depend upon machinery.

"I would therefore recommend that you organize in the first place an efficient body of about a dozen head workmen of good character, in this country, capable of erecting, and with the assistance of the native population, carrying on a small iron-work and foundry, consisting of one blast furnace, two cupolas, and a small forge hammer for making malleable iron; the whole may be worked by water power, and extended as circumstances may require. This is exactly the force I had at command in the Persian expedition, and these were the views that guided me in conducting it; and you are already aware that at the end of two years, including the journey there, we had erected a well arranged iron-work and foundry, and succeeded in making good castings of machinery, besides great quantities of shot and shells. The whole expense of setting such a work a-going I would estimate at £10,000; and after two or three years, I have no doubt, with proper management, the work would soon pay itself.

"I shall be happy to inform you on any point that may have been overlooked and remain with much esteem.

"Yours respectfully,

"JAMES ROBERTSON,

"*Manager for Shotts Iron Company.*

"Captain H. Drummond.

"P. S.—It was the original intention to have located the establishment in the unhealthy but rich mineral province of Mazondoran, on the shores of the Caspian Sea; but after mature consideration, it was deemed more advisable to ensure the lives of the workmen, and consequently the success of the undertaking, by making the first settlement in a more healthy district, although this might be attended by many disadvantages."

The same reasons which appear to have influenced those who conducted the Persian undertaking, to make choice of a healthy district for a first settlement, have always weighed with me in directing attention to the Himalaya region; the advantage of preserving the health of a considerable body of European artificers in a climate like their own is obvious enough.

Professor Jameson in writing on the subject of Himalayan mines, observes,—"No mine can thrive in our Indian possessions until well-instructed mine-masters and experienced miners are sent out from Europe." "The wretched condition of Indian mining is shown by the fact, that the united rent of the numerous iron mines (Himalayan) does not exceed the annual

sum of 1,500 rupees, whilst the iron is of the very worst quality." [The professor of course alludes to the state of the manufacture, for the iron ought to be of the finest quality.] "The mining and metallurgical operations in use are on a parallel with those of Europe during the dark ages."*

There are two descriptions of iron to be obtained in India. The first is a coarse iron, the same that we have in England, and produced from the common argillaceous ironstone, coal being used as fuel; the second is a superior iron such as we import from Sweden and Russia, and is extracted from the richer ores, charcoal exclusively being the fuel used. The coal and ironstone formations of India traverse the centre of the country in the direction of the territories of Nerbudda, Burdwan, &c. The richer ores are met with in great beds which are widely distributed through many of the hill districts of India. Professor Jameson observes with reference to these, "Iron to any extent might be obtained from the great beds and veins distributed throughout the country, and sold at such a rate as to banish all foreign competition."† Now it is worthy of remark, that those parts of the country which produce the richer ores and from which the best iron is obtained, are generally more or less covered with extensive jungles. We have seen also that charcoal and not coal is essential for its manufacture; here, then, we are furnished with even a profitable mode of clearing many parts of the country—an object of very great importance, not only as regards the re-claiming of land, but rendering it more healthy. The natives themselves with the sole view to effect the former have in many places been at the trouble of cutting down and destroying the trees, as in the Terrae Jungle, for instance, at the foot of the Himalaya. These facts will show, in the most satisfactory manner, the grounds on which I differ from Mr. Lushington, when he dwells on the great importance of discovering coal formations in the province of Kumaon.

But in opposing myself to the views of my friend Mr. Lushington, I should be sorry if my opinions and statements rested on my own authority. I believe I may say that, with the solitary exception of that gentleman, I am supported by

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* *British India (Edin. Cabinet Library) vol. iii.* 321, 323.

† *British India (Edin. Cabinet Library) vol. iii.* 345.

all who, so far as I know, have written on the subject. I have already quoted the opinions of Professor Jameson, Mr. Bald, and Mr. Robertson, opinions entitled to the highest confidence, and which are founded on the known geological features of the country, and official reports on the subject. I may besides adduce the testimony of men personally acquainted with the country, whose opinions are equally entitled to respect. I do not speak now with reference to the coal and ironstone formations, but only as regards the productions of the Himalaya.

Mr. Lushington's predecessor, Mr. Traill, who was for twenty years Commissioner of Kumaon, thus expresses himself:—"Of the capabilities of the mines there was no doubt, as in every instance where a little extra labor and capital was expended, the produce fully repaid the speculator. A conviction of the value of the mines long since induced me to recommend to the Government to undertake the working at their own risk."

The following is the opinion of Captain Glasfurd, Executive Engineer of Kumaon:—"I am entirely of opinion, that any steps which may be taken towards the improvement of the mines in Kumaon, are well worthy the attention of the Government. The repositories of copper and iron have been pronounced by competent judges to be extensive; fuel is at hand in abundance; labor is comparatively cheap; water as a moving power for machinery is in most places available, and the climate is admirably adapted for the employment of European artificers. The chief, and indeed only obstacle, that appears to exist, is the transport in the hills, but this would easily be obviated by the formation of good roads practicable for bullocks, mules, &c."

The late Captain Herbert, assistant to the Surveyor General of India, and superintendent of a mineralogical survey, after alluding to the existence of gold in the Himalaya, goes on to say,—"In the copper, lead, and iron, however, in which these provinces abound, may be found a more tangible, as well as more productive source of wealth. It is certain that the former metals exist in very considerable quantity; and, for the iron, nothing is wanting but a proper system of management to render it superior to that of England. To her repositories of these metals of tin, and of mineral coal, is England mainly indebted for the unexampled wealth and power to which she has attained.

Why they should not here prove equally mines of wealth, if properly managed, appears difficult to understand. With the ore in abundance, fuel and other means of reduction at hand, labor cheap, a very short line of mountain carriage, and half of that a line of made road, what is there but capital and skill required to produce any quantity, and considerably under the present market prices."

I have elsewhere given the just remark of Mr. Robertson, Manager of the Shotts Iron Works, that "as iron is the great instrument by which every thing excellent in art and commerce is achieved, it is of the utmost importance that its manufacture be in the first place particularly attended to, and whenever this department is in a fair state of forwardness, the transition is easy and natural to the other more lucrative, though more difficult manufactures which depend upon machinery."

The peculiar applicability of this to India, at the present moment, must be apparent to every one in any degree acquainted with the state of that country. A period must arrive in the history of each of our colonies, when its dependence upon us for those articles of daily consumption which are freely produced on its own soil can only retard commercial prosperity and the advancement of civilization. Perhaps that period has for some time been attained by our Indian possessions, and it might have been wise policy to have earlier developed the extraordinary natural resources of that highly-favored land; without, however, looking back to what might or might not have been effected in this respect, it is obviously for the interests of British India that every effort should be made to promote those schemes which have conferred inestimable benefits upon Europe. The establishment of iron works in the interior of India, considered in the preceding pages, may be regarded as a case in point. There is no question that it would have been incalculably to the advantage of all parties, if the iron which exists in almost every part of the country, had been made available for the purposes of her internal improvement.

The recent proposals for extending the benefit of railway communication cannot be too highly appreciated. With reference to which, it is forcibly remarked by the *Times*, that "it is impossible to foresee the rapid improvement which the fulfilment of this measure will cause to take place in the condition, moral and temporal, of the people of that immense empire; and most

sincerely must all lovers of the human race pray for its speedy completion."

Connected with spirited projects of this nature, will be an enormous consumption of iron; and it will manifestly be a very important question to be determined, whether this iron shall be drawn from exhaustless native sources, or at an extraordinary cost and transport from Great Britain.

*Edinburgh*, 1845.

# MEDICAL REPORT

ON THE

# MAHAMURREE

IN

# GURHWAL

IN 1849-50.

No. 517.

FROM THE MEDICAL BOARD,

TO THE HON'BLE J. THOMASON, Esq.,

*Lieut.-Governor of the N. W. Provinces.*

*Fort William, the 5th September*, 1850.

HON'BLE SIR,

With reference to Mr. Thornton's letter No. 206 of the 22nd February last, we have the honor to forward two letters, in original, Nos. 73 and 80 of the 19th and 22nd ultimo, from Superintending Surgeon Renny, and a document, with an Appendix and Map, entitled "Notes for a Report on a disease prevailing in Gurhwal, locally called Mahamurree or great plague." These notes give as complete a history and description of the disease, we think, as it was possible in the circumstances to obtain. Your Honor will not fail to remark that Mr. Renny has executed the laborious and somewhat hazardous task assigned to him with the conscientious and faithful regard to the obligation of duty and truth which have guided him throughout his career in the public service.

2. It appears to us, who have no intimate personal knowledge of the people and localities visited by Mahamurree, that Dr. Renny's suggestions, founded mostly on the practice of the people themselves, to check the spread of the epidemic, and purify the infected houses and hamlets, are deserving of adoption; and when the dwellings of a village have been destroyed by fire, the Commissioner will be best able to judge how far his interference may be permitted to ensure the erection in their room of habitations better adapted to ward off the access of disease, or to mitigate its character when actually established in a house or hamlet.

3. Among a people so poor, ignorant, and so much under the guidance of superstitious prejudices, and whose habits are at the same time so inveterately filthy, it may be expected to be a work of time to bring about all the salutary changes that are undoubtedly necessary to protect them from the ravages of infectious disease; but it appears to us that much may be done at once by a judicious exercise of authority to improve the construction of their houses, and to require the removal to a distance of the heaps of rotting filth that are allowed to accumulate at every door, and to poison the atmosphere of whole villages.

4. We also consider that Mr. Renny's suggestions for the accomplishment of that part of the investigation which his other important avocations prevented him from prosecuting, and which, in truth, it was scarcely within his province to prosecute, are deserving of attention, we mean the task of testing how far the disease may be amenable to judicious medical treatment, and we are confident that there will be no backwardness on the part of Medical Officers, sojourning in the Hills, to devote themselves to the enquiry.

We have, &c.

(Signed) G. LAMB, *Physician General,*

(Signed) W. STEVEN, *Surgn. General,*

(Signed) J. THOMSON, *Inspr. General.*

FORT WILLIAM, MEDICAL BOARD OFFICE,
*The 5th September*, 1850.

## No. 73.

FROM DR. C. RENNY,

*Superintending Surgeon Meerut Division,*

TO J. FORSYTH, ESQ.,

*Secretary Medical Board, Calcutta.*

DATED SUPERINTENDING SURGEON'S OFFICE, MEERUT,

*19th August*, 1850.

SIR,

Agreeably to the instructions conveyed in your letter No. 1062 of the 4th March, I proceeded in April last into the province of Kumaon as before reported.

I have now the honor to submit for the information of the Medical Board, the results of my inquiry, in the form of "Notes for a Report on a disease prevailing in Gurhwal, locally called Mahamurree, with Appendix," which I trust will be approved of by the Board, as some advance towards a knowledge of the disease investigated. The copying of this has been much delayed by the business of the office.

In all the preliminary information for the journey, and in all measures taken for the prosecution of the object contemplated, I received the utmost assistance and support from J. H. Batten, Esq., Commissioner of Kumaon. The Assistant Commissioner of Gurhwal did not join me in the district; he was in bad health, and might not have been able so to promote the investigation; in all other ways he gave cordial aid, and I cannot say that by his presence he could have done more than guide me as to local particulars, which I was forced to find out for myself; but as he called for a commission, I have thought it right to state so much for the information of the Board.

Upon all measures of prevention for mitigating the disease under review, it is difficult to offer a project applicable to so rude a society and so wild a country; some of the means were so obvious that it did not appear judicious deferring them for the full report, and these were proposed at once to the Civil Authorities in a letter of 14th May, of which a copy appears in the Appendix.

There remains for me to submit, to the judgment of the Board, a plan, apparently practicable and easy, for giving medical aid in the district of Gurhwal, on any occasion of the distemper again showing itself. A certain number of Assistant Surgeons are always present at Mussooree, Landour, Almorah, and Nynee Tal, places all near the borders of Gurhwal, on sick leave; many of these are capable of duty in the Hills, especially those who have had the benefit of the climate for 10 or 12 months, and others whose health has been impaired in the plains without organic disease; some of them follow professional practice at the stations, and the Government has more legitimate right to their services if wanted. It would not be easy for me to give a list of all available at this time, because many of these Medical Officers, coming from other divisions into the Meerut circle, have failed to attend to existing orders, enjoining them to report to the Superintending Surgeon. I was not aware of their presence in the division till my late visit to the Hills. But a sufficient number of willing candidates could always be found, who placed, with the permission of his Excellency the Commander-in-Chief, at the temporary disposal of the Civil power, might be employed to give medical aid over any part of Gurhwal. Four or five, located round any infected tract, would be able, with a suitable establishment, to trace out and relieve every case within their circle of observation, and would supply what is still wanted, information regarding the disease to be gained from treatment and from dissection.

I would not wish to be supposed to recommend the services of these Medical Officers being exacted without remuneration, and the bestowing this aid has now become so indispensable as a work of humanity and necessity, that the Government will no doubt be disposed to grant, on due representation, a suitable allowance from the Civil Department; the proper amount of this would appear to be one equal to the Staff allowance of an Assistant Surgeon per mensem, for the months of the year so occupied, as only some months may be practicable, with the travelling expenses usual in the country, that is payment of the hire of coolies for each day of marching.

It has seemed to me just towards myself to append an extract, from a Journal of Proceedings, of a few days of the most active period of the journey, to exhibit to the special observation of the Board, the particular difficulties of this inquiry, and the obstacles to even finding out the disease in such a widely scattered population; and it is hoped this will

suggest to the Board the inference that as much has been effected as could be done by one individual. The same difficulties would not attend a party of Medical Officers, with more time and leisure, and establishment at command, and all co-operating over and surrounding a certain extent of country.

I have, &c.,

(Signed) C. RENNY,

*Superintending Surgeon, Meerut Division.*

SUPERINTENDING SURGEON'S OFFICE,
MEERUT:
*The 19th August*, 1850.

*Notes for a Report on a disease prevailing in Gurhwal, locally called Mahamurree or Great Plague.*

1. This remarkable and very formidable distemper first broke out in the district of Gurhwal, in the province of Kumaon, in the year 1823, and a particular fact arising out of the annual religious observances of the Hindoos serves to fix this as the exact time. The disease is not mentioned in Fraser's Tour in the Himalayas in 1820, and may be presumed to have been then unknown in the district. It has since prevailed endemically in some part or other of Gurhwal, and has occasionally raged with great violence apparently as an epidemic.

History of Mahamurree.

Its most remarkable appearances have been as follows. It began near Kedarnath, in the snowy range, and for some years confined its ravages to pergunnahs Nagpore and Budhan, which form the subject of the first report upon it in 1834 and 1835; in the latter pergunnah it again prevailed in 1837, along the higher parts of the river Pindur; in 1846-47, the Mahamurree found its way to the sources of the Ramgunga in Puttee Sobhee, and devastated the village of Sarkote, situated at above 7,000 feet on a high easterly spur of the great mountain Doodoo-ke-Tolee (10,300 feet above the sea); at the same time a village in Kumaon proper, near the source of the Cosilla in Puttee Borake Rao was visited. In 1847, a village within 15 miles of Almorah west, situated among the pine forests of the Secahee Devee range was attacked. At the latter end of 1848, a few villages in pergunnah Danpoor, along the line of the river Pindur, were

threatened with the disease, but the alarm subsided; on the whole, the year 1848 and part of 1849, may be said to have been remarkably free from Mahamurree throughout the province. During the rainy season of 1849 it broke out with great virulence in Puttee of Chuprakote, and although the disease did not spread through the country it proved very fatal in particular villages, Murhoree and Duddolee. A rumour has gone out, that Mahamurree appeared at the last annual fair at Bagesur, but the occurrence is uncertain, and from very particular enquiries made, the presumption is that it has never reached that side of Almorah.

2. The present inquiry, instituted under the orders of the Hon'ble the Lieutenant Governor of Agra, and upon the instructions* of the Medical Board, comprised a tract in Gurhwal, of which the base was from Bhoongdar to Kuneeour, on the high road from Almorah to Sreenuggur; the research was made chiefly on the northern side of this base, by personal visits in many parts, and the rest by written reports received direct from the fiscal officers, and by verbal enquiries through means of public Chuprassees placed at my disposal, over a space of the country of which the extreme points were Bhoongdar and Kuneeour mentioned before, and Lohba and Chandpoor on the north. Within this space Sarkote had suffered from Mahamurree in 1847, Muhroree and Duddolee in 1849, and during the present year 1850, the large village of Mason, on the high road between Bhoongdar and Kuneeour, had been attacked, or rather the environs of it, and it was from among the villages round about it that cases of the disease were seen on the present occasion. In a village also to the south of Mason, called Bergaon, there were several fatal cases in the month of May 1850, but the information and reports were imperfect, owing perhaps to its being situated on the boundary of Gurhwal, and possibly not within the district. Through want of precise information at the time the village was not visited as it ought to have been.

3. On undertaking this investigation little assistance was obtained from any published works, or medical opinions on the subject of Mahamurree. The very imperfect account of it† in the report on the Pali plague was the only printed information to be found, and that is of minor importance in a medical point of view, not having been verified by actual observation. It very

* Appendix A. † Appendix B.

correctly describes the disease as a febrile affection, but only gives from hearsay the belief of the natives in its contagious nature. A manuscript report on the disease was kindly furnished by Dr. J. McCosh, formerly Surgeon of the 31st Regiment N. I., when stationed in the province of Kumaon, but it chiefly contains "Remarks on Mahamurree made on a visit through parts of Gurhwal," where the disorder had prevailed, when however he did not see a single case of the infection. From all the information procurable, it appears certain that no instance of a person laboring under Mahamurree has been witnessed by any Medical Officer till the present year; it has now been actually seen, although from necessity on a very small scale as to time and number of individual cases. All that could be found in the tract visited were inspected, and the disorder abated in the infected district, or disappeared from it, after the middle of May 1850. In the attempt here to combine all the knowledge obtained of the disease, care will be taken to keep separate the facts observed or resting upon what is considered good evidence, and other circumstances depending upon hearsay or less perfect proof, and upon the ideas and prejudices of the natives. Among the latter are many particulars that may be true, but they require elucidation; to one only is the present report decidedly opposed, namely, their fears of contagion.

Want of previous information.

4. Mahamurree is a malignant fever, of a typhus character, accompanied by external glandular tumours, very fatal, and generally proving rapidly so in three or four days; it appears to be infectious, and is believed not to be contagious. The usual symptoms of fever are present, and might be enumerated in every variety, but the cases observed were too few to rest upon them the diagnostic marks of the disease on all occasions. Heat of skin, accelerated pulse, lassitude, chilliness, nausea, thirst, a white and furred tongue, were all noticed. Headache was prominent in all, increasing to the most acute pain with blood-shot eye, and it is supposed the brain will be found the most morbid seat of disease, though all the organs may no doubt partake of the highly septic quality of the pestilence. The external swellings, suddenly rising indolent, and not very painful, are the most characteristic proofs of the malady; glandular swellings in various parts of the body, the groin, axilla, neck, and even in the legs, are described as occurring, but in the cases witnessed recently as well as those of the few

Description of the disease.

who had survived an attack, the tumours or buboes, if they can be so called in that state of incomplete inflammation and suppuration, were only in the groin, a long diffused tumefaction with an enlarged gland in the centre of the size of a nut; they are looked upon by the natives as the most deadly sign of the distemper, and are really to be considered an unfavorable prognostic. Symptoms similar to those of cholera have been reported by the natives, but none at all corresponding were seen; the stomach and bowels were little affected, and the latter were inclined to costiveness. The lungs did not appear to suffer, and the respiration was not labored except in one case far advanced. From unavoidable obstacles the state of the kidnies and the secretion was not ascertained. The most remarkable circumstance in the disease is the mild nature of the entire symptoms under so rapid a termination, little febrile or other constitutional excitement presenting itself where death was certain in 24 or 36 hours. Such trifling derangement of the functions of health would be a startling and unaccountable anomaly and not to be reconciled with the speedy fatal result, had not the same thing been observed in other epidemics in India, and even in the plague itself.

Origin and causes.

5. The origin of Mahamurree is very obscure; on the primary causes of its arising in Nagpore and Budhan, the history of the pestilence in these pergunnahs is still a desideratum; nor can it be attempted, on the short experience lately gained, to clear up the uncertainty that hangs over it. The disease is considered to arise from local causes, and, according to what is known of the fevers of Hilly countries in all parts of the world, it takes on a typhoid form; when again the course of seasons, or the state of the atmosphere, or other concomitant auxiliaries, are favorable to the propagation of the infecting miasm, the disorder spreads more generally, and strictly in accordance with the characters of other epidemics, its attacks are uncertain and capricious, destroying perhaps one or more villages, while others not far off escape entirely; it has shewn also the usual epidemic periods of commencement, violence, and decline. The exact seasons of its invasions are not fully ascertained, but in the past year it appears to have broken out during the rainy season or towards the close of it, to have continued with more or less virulence till the end of December 1849, to have reappeared in another direction in March or April, and to have abated generally over the country

in May 1850. If we are without the knowledge of the primary source of typhus, we have at least all the conditions, acting upon a great part of the population of Gurhwal, to which is rationally attributed the rise of such diseases in other countries; these are, to use simple terms, poverty, filth, and bad food or starvation; and if we examine these extremes more minutely, we shall find under each head sufficient predisposing causes for a general susceptibility to the putrid diseases in question; and the very slow improvement in these respects may also go far to clear up the extraordinary fact of so fatal a sickness having prevailed over a district for so many years. The poverty and consequent privations are understood to extend chiefly over the northern pergunnahs, those situated near the snowy ranges, where Mahamurree first appeared; the filth is everywhere, in their villages, their houses and their persons. It destroys the otherwise pure quality of the air and maintains ever round the inhabitants that contaminated atmosphere so favorable to the condensation of infectious emanations. Their dwellings are generally low and ill-ventilated, except through their bad construction, and the advantage to the native in other parts of India of living in the open air, is lost to the villagers of Gurhwal from the necessity of their crowding together for mutual warmth and shelter against the inclemency of the weather. The food of the majority is bad and insufficient. In the northern parts wheat does not grow, and even where it does, the general food consists of the small grains, a poor diet, and not nourishing enough for a cold and moist climate.

Mahamurree not contagious.

6. Mahamurree, by the name given to it from their own fears, has been held by the natives to be contagious; hence it has come to be universally reputed so from the time it was first heard of; and ostensibly from the external swellings with the synonymous name of plague, it has been conjectured, it might be identical with pestis, the plague of Egypt. It becomes therefore an important part of the present Report to give at some length the reasons for holding an opposite opinion, namely, that it is not contagious, and simply a typhus of a very malignant kind, most probably infectious at all times, and certainly so when many predisposing circumstances favor its extension.

*a.* The natives can hardly be expected to comprehend or distinguish between contagion and infection, and even with

better knowledge it must be allowed to be difficult to mark the confines of each, when we see it still disputed in Europe, whether yellow fever be contagious or not. What therefore is meant to be supported is, that Mahamurree is not propagated by a specific contagious agency, as small pox is known, and plague is most generally acknowledged to be, or in other words, that Mahamurree is not communicated by direct or mediate contact.

*b.* In this disease, the swelling, be it of a gland or otherwise, is the only outward symptom of the kind; nothing else external has been either seen or heard of now, or mentioned in former years; all other characteristic eruptions, exanthemata, they have been called, as carbuncles, spots, petechiæ, vibices, &c. &c. of plague are wanting. In one dead body petechiæ were lately seen, but, on full consideration at the time of inspection, they were believed to have taken place after death, not having been obvious previously during life. In the above diagnostic marks the two diseases do not agree, while glandular swellings or buboes, alone, have been observed in many other instances* of typhus fever in India. There is further this distinction in the symptom between the two diseases, subject to correction on further observation of Mahamurree; in plague, a buboe has been taken as a favorable sign; in the other disease the swelling is looked on, by the natives, as the precursor of death, and even upon their information, we may take it to be the most fatal symptom.

* Report on a disease which prevailed in part of Kutch and Kattywar in 1815-16.
Ditto ditto in Kattywar in 1819-20.
Pali Report. Calcutta, 1838.

*c.* The non-contagious nature of Mahamurree was tested in my own person, in defiance of the pre-conceived character of the disease, from actual contact with the sick; in all cases practicable, the pulse of patients was felt, the state of the skin examined, and the swelled glands touched. The Native Doctor and Compounder who accompanied me did not touch, but they approached close to the infected; and what are stronger instances of immunity, a mother whom I witnessed attending her child, and a daughter her mother, both did so during the entire attacks, and escaped the disease up to late information, since leaving the district. The parties remained free from contagion if it existed; the exemption of all from infection may have been owing to the occurrences taking place in the open air of the mountain; and the only objection against the present example, as a test of non-contagion, is that possibly

the individuals were not at the time of exposure susceptible of the disease.

*d.* On entering upon this inquiry, it was impossible to pass by the instruction gained from a similar pestilence in 1836, called the Pali plague. There the disease was first declared to be the contagious plague of Egypt, upon proof that seemed full and conclusive, and sufficient to warrant the preventive measures then taken regarding it; though by further time and observation it has been shewn in the Pali report to have been a typhus fever, and the buboe to have been only a symptom of its great malignancy. In that report are detailed many varieties of malignant fevers, in various countries, in which buboes and other glandular tumours have been observed. Very recently in the "Epidemic fever of 1847," in the United Kingdom, "about the face and jaws, moreover, *glandular enlargements* and chronic abscesses were very frequent."*

*e.* On a retrospect of the progress of Mahamurree, from its first appearance in 1823, or from 1836, when it first attracted much notice, up to the present day, the advance of it seems to be incompatible with the existence of contagion. It has not been allowed to spread itself freely without some attempt at restraint. The native sufferers have always followed a plan of escape, originating it is true in their dread of the disease as contagious, but which ought to have been a security against the extension of contagion, and quite efficient to eradicate it. This plan of rejecting all mercy for the sick, was the reverse of what is practised in the west; instead of segregating the sick from the healthy, the latter, as soon as Mahamurree appeared in a village or on the alarm of it, abandoned their houses and fled to the forests, leaving the sick to their fate, commonly to a solitary death. Another portion, they who had the infection already in a latent form, were thus not separated, but as the infection shewed itself, these too were left alone in the jungles or wherever they were. The few who escaped the infection did not mix with their neighbours, who on the contrary kept a watchful guard to prevent any intercourse, and would have used forcible means for the purpose if necessary. It was to all purposes a cordon sanitaire, as much as when Casal Curmi was walled in and surrounded on the occasion of the Malta plague, but as in that instance it has not here stopt the disorder. Again, instead of purify-

* Medical Chirurgical Review, April, 1848.

ing their houses, they merely left them empty for a long period, sometimes twelve months, or allowing a rainy season to intervene; then, if any survivors returned to the village, there was no recurrence of the disease. It had selected its victims and appeared afresh somewhere else, in a more susceptible place, often at a distance and with the utmost irregularity in its attacks. Here we have a description of an endemical sickness, and, when numerous villages are attacked simultaneously, of an epidemic, carrying with it infection probably but not contagion, and indicating a local origin but one of very extensive activity.

*f.* From this general view of the epidemic, let us take a single instance, the best authenticated that was obtained, of the influence of the primary cause of the sickness over parties who did not fly from it. In a hamlet of two huts, near to Duddolee, away from other houses, were two families, connected with each other, and composed of 16 individuals in all, young and old, men, women, and children, and it will shew the crowded state in which these poor people live to add, that 30 head of cattle, large and small, belonged to them, and according to the usage of the country, would have had the shelter of the same huts in bad weather. Mahamurree appeared amongst them in July 1849, and from motives of affection or other reasons they did not separate as in villages, but kept in or near their houses, submitting gradually to the ravages of the distemper: first two died consecutively, then four, afterwards three at intervals, and so on, till 14 in all perished, and only one man and his child survived without having the disease at all. But this destruction extended from July to December or later, and admitting that the clothes and houses might be the fomites of contagion for that length of time, it is more reasonable to conclude the work to be that of an epidemic fever, more or less infectious, than that a pestilent contagion should have been so slow, and have spared even two of the number. This is also the strongest instance, obtained on the spot, of the extreme virulence of this disease, as it prevailed last year, showing the frightful number of 88 per cent. attacked, and the same proportion proving fatal. It does not appear to have been so destructive in other places, where the inhabitants scattered themselves.

*g.* Mahamurree has prevailed in temperatures beyond which it is known that the plague is destroyed or suspended in Europe and Africa. The limit of activity for it is very

small; Good* quoting from Sir Gilbert Blane names the extremes 60° and 80°; Copland† gives lower numbers, fixing the scale from 35° to 75°. Now Mahamurree hitherto has appeared mostly in the villages near to the snowy ranges, and one spot has been named as high as 10,000 feet above the sea, which elevation must give a constant temperature low enough to check the plague; whereas the report is that Mahamurree has been as virulent in such a climate as elsewhere. It may be freely admitted, that at such an elevation woollen clothing, if not openly exposed to the air and sun, might retain and communicate the virus of contagion, although it fails to do so in Egypt in the healthy season; but it is more likely that the crowding together in houses, forced on the inhabitants by their poverty and the extreme cold, would give virulence to an infectious disease, even at such a temperature. Again we have seen that Mahamurree may exist in its perfect malignity at heats above the extreme range mentioned. At Bhoongdar on the 17th May, the thermometer in the shade stood at 83° maximum in the day; the place is on a detached Hill above the stream, and freely open on all sides; at Mason, or rather at Mycollee near it, where Mahamurree occurred, situated on the same stream and higher up but in a close confined glen, it may be affirmed that the heat was much greater even a month earlier. At Deghat, about ten miles lower on the same stream, in a tent nearly level with the bank, the maximum thermometer on the 19th May was 95° at three P. M.‡

*h.* The unvarying course of an attack of Mahamurree, so different from the various order of the symptoms which plague exhibits, is viewed as a proof of the former being a distinct disease. By all possible means of information it seems estab-

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* Good's Study of Medicine: London, 1825. Anthracin Pestis.

† Copland's Dictionary: London. Pestis Septica.

‡ *Note.*—The following ranges of temperature in several localities in Kumaon have been contributed by J. H. Batten, Esq., Commissioner of the Province. The mean temperature of Duddolee will be about 61°, and of Muhroree (exactly the same elevation as Kuneour) about 59° or 60°. The extremes 85° and 30° may be assumed for the greater part *of inhabited* Chuprakote; the thermometer falls to 25° sometimes, and *may* perhaps rise to 90°, but the latter must be *very* rare even in the lowest part of Chuprakote, Lohba and Chandpore. At Almorah the thermometer has been seen at 91° in a western verandah in June, and 82° *at the same time* in a northern, while inside the house it has been 77°. The extremes this year in the out-of-door shade at Nainee Tal have been 18°, and 80° (St. Loo, north side of the Tal). In the Hills the thermometer has been observed at 105° in a tent, and 88° in a grass-hut on the same spot.

lished that every fatal case terminates on the third day. This by the calculation of the natives may be from 48 to 72 hours, but no instance could be found of death being longer protracted; even the few men who recovered, said they were better on the fourth day. It is not to be forgotten that this uniform progress took place in the absence of all palliative treatment, and under the most pitiable neglect. Whether active modes of cure, early applied and with better management of the sick, may be of power to alter the morbid order of the symptoms and effect a different result, is yet to be tried.

Cure and prevention.

7. On the medical treatment of this disease very little can be said in the present state of information. Nothing was known before, and much knowledge could not have been expected to be acquired on this head by the present investigation. In the course of it, very limited opportunity and means were available for applying any systematic method of cure. The remedies here and there administered were those used for the treatment of fever in general, and it is believed such therapeutic views will be found most applicable to the nature of the disease. The natives themselves seemed to abandon all sort of treatment, and no information could be gained of native practice, for there was not one person in the district, Hakeem or Baid, to exercise it; only it was reported that in Budhan blood-letting had been tried, with what success could not be determined. The condition of the blood in this disease still remains to be discovered and examined, and it may be predicated that bleeding will be found of great advantage, if resorted to in the very earliest stage of the infection. Unfortunately there are few premonitory symptoms, and time may easily be lost. After bleeding, the prompt exhibition of the most powerful antiseptic remedies may avail to counteract the putrid tendency of the disease, and thereby gain time for the alleviation of the general symptoms. Seeing the almost total failure of present treatment, attention was turned to the most practicable means of prevention, and a letter on the subject was written to the Assistant Commissioner of Gurhwal which is given in the Appendix.* The first obvious means of counteracting the spread of sickness would be the removal of the sick instantly from the healthy, and to place them in seclusion, and well separated, for medical treatment, supposing that provided for and at hand; but as it is difficult to lead the native into new ways, even for his own good, it will

* Appendix C.

be a long time, ere he will be induced to throw aside part of his dread of Mahamurree and provide for the comfort of the sick, instead of thinking of his own safety by flight. Under their present fear and behaviour, the next best means of prevention is by disinfecting their houses; and since they abandon them, the easiest mode of doing so is by fire. The destruction is a slight loss to the inhabitant, as in most of them the only part burnt will be the roof, which is easily to be replaced from the forest; and as the huts are much detached from each other, only those need be destroyed in which the sickness has shewn itself; none, however, should be spared in a village upon which there is the least suspicion. This manner of expurgating the villages was recommended in the letter mentioned, and it might also have been then suggested to whitewash all the houses, inside and outside, with lime or other disinfecting materials, a custom of cleanliness more practised in Kumaon than Gurhwal. There is another measure of the very utmost importance in purifying the villages, that ought to be enforced everywhere by the most stringent regulations, namely, the immediate removal of the dead bodies, which hitherto have been left to putrify in the deserted villages, rendering them not only longer uninhabitable, but forming themselves the sources of disease, and the cause of pollution of the air, by which the virus of an epidemic is extended. The only scavengers have been the wild beasts, and chiefly the bears, for the latter have been observed by sportsmen to frequent the places ravaged by Mahamurree, and are certainly in the hills carnivorous, although commonly they live upon the crops during two parts of the year, remaining dormant in the interval, notwithstanding it is the hottest season. An interference in the domestic customs of the people may appear intermeddling on the part of the Civil Authorities, but without it the squalid and dirty habits will never be corrected in such a wild country as Gurhwal; on one point this may be exercised to advantage, by an order to remove their manure heaps from close to their dwellings. They are collected in large quantities for the occasional use of their fields, a process of tillage not common in the plains, but practised everywhere in the hills; these heaps maintain around the inhabitants a noxious atmosphere that must be baneful to them even in health, and which is the prime agent of extending pestilential miasm, whether emanating from their own bodies or produced beyond them. Finally, upon the treatment of Mahamurree, a plan will be proposed to the Medical Board in a letter to accompany this Report, for supplying medical aid over the district in the event of the epidemic again breaking

out. This may prove the most efficacious means of observing the disease from its earliest accession, and correcting erroneous views taken in the present Notes.

Mortality.

8. The mortality from Mahamurree is very great, not so much in actual numbers, as relatively to the small amount of population. In the Appendix is given a table of deaths in 1834-35, and a similar table* is appended of the number of deaths in 1849-50 up to the 28th April 1850, to which are to be added three deaths in May in the jungles above Mason, and four uncertain. The list is supposed to be inexact, from a few deaths from other causes being intermixed. It is difficult to obtain the true particulars in a country so thinly inhabited, and it is not possible to collect in the province, the data on which to assume the amount of mortality between 1836 and 1849. The recent mortality has been estimated by the Civil Authority to be probably 25 per cent. on the total population; recent enquiries would also show it to have been even greater, but the statistic details are most defective; in certain places the destruction has been very great, of which an example has been given of 14 deaths out of 16 people in one place; in the village of Sarkote in 1846-47, if the reports of the inhabitants are to be trusted, out of a population of 65 in all, 43 died, two only recovered, and 20 escaped without infection. The strong proof of the fatal nature of the disease is the small number who recover; and upon this criterion Mahamurree might be named the most pestilent disease known. It seems however, that on this point exaggeration has probably been made, and this branch of the question needs further examination. Two men only were reported as survivors of this last epidemic of 1849-50. One was brought to me, an inhabitant of Muhroree, the other was heard of at Bergaon; two more men were brought to me, said to be the only survivors of the epidemic that raged at Sarkote in 1846-47; no others were to be found, as it was affirmed, in the large tract of country gone over and examined.

Population of Gurhwal.

9. In an enquiry like the present, it is an important element of comparison to fix the amount of population over which any unusual sickness exerts its influence, but such is the rude state of the district of Gurhwal that no probable calculation can be made of the number of inhabitants; they appear numerous in some

* Appendix D.

places, while on the other hand vast tracts are unoccupied. There has been no attempt to ascertain the fluctuating ratio of the population, or whether it be on the increase or decrease. One fact only is on record, from which it may be presumed that the number of people existing in the district has enlarged since the province came under the Government of the Honorable Company. In Fraser's Tour, published in 1820, it is stated,* probably on the authority of the then Commissioner, such being the claim of accuracy for the work, that in 12 years, the Goorkhas had abstracted, in a kind of slavery, two lacs of inhabitants from Gurhwal; and as this compulsory bondage or degrading tax has not been permitted under the present rule, and as three revolutions of the same period have passed since the conquest, it may be taken for granted that the population has considerably extended itself. The Mahamurree, though greatly destructive through two-thirds of the 36 years, could not have thinned the numbers at a rate of more than a small fraction of the tax; and it may therefore be possible that the disease has been kept up, in the manner observed in other poor countries, by the pressure of the population upon the means of food. This is assumed merely as a conjecture on a point whereon exact documents are unattainable.

Progress of Mahamurree.

10. The present alarm regarding Mahamurree has arisen from the disease spreading to the south, and threatening an irruption into the district of Kumaon Proper. Hitherto it had kept, with some slight exceptions, to the ranges nearest the snow and to the oak forests. More recently it has appeared at points of less elevation, in the zone of lower pines; and it becomes a question of importance to watch its progress among the southern hills. On a point of such moment it may be expected of me to have given serious reflection upon the probability of the disease extending over the district of Kumaon Proper, and my impression is that it will not make much progress in this direction. It is impossible for me to foresee or foretell the acces-

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* *Note.*—There is no doubt that the Goorkhas, during their tyranny, seized and sold the unhappy mountaineers, particularly of Gurhwal, in great numbers; of that country, in the course of 12 years, two lacs of people are said to have been thus disposed of: in consequence of the desolation spread around, from the seizure of his crops for Military purposes, the zemindar could seldom pay the quota of his tribute: out of a family of four or five children, they forced him to give one as a commutation, and instances have, it is said, occurred, where every one of the children were thus in succession torn away. *Journal of a Tour through part of the Snowy Range of the Himala Mountains.* By *J. B. Fraser, Esq., Lon.* 1820.

sary influences that may prove favorable, as in other epidemics, to the extension of the disease, and it may attain such a concentrated form as to extend itself against all expectations and precautions, but many advantages are perceptible that will tend to impede its advance into Kumaon. The uncleanly habits of the people do not widely differ from the others; their means of external comfort however comparatively do; and the better food, difference of clothing, construction of the houses, and the general condition of the inhabitants, though still capable of great improvement, are good grounds for anticipating less danger from pestilential disorders. With such views of this peculiar malady, and of its modes of propagation, it does not fall to me to propose or recommend any strict quarantine regulations or cordons, which would be indispensable in the case of contagious plague. This opinion however does not preclude the adoption of all ordinary precautions against the spread of infectious disorders; and such preventive measures will be more easy of application in Kumaon than they can possibly be in Ghurwal.

11. "Notes for a Report on Mahamurree" would fall short of their design, if they omitted to touch upon matters of belief held by the natives respecting it; a few of these are here enumerated together, not as things of total incredibility, but as subjects of interest, some of them deserving further examination.

General Remarks.

The natives in Gurhwal suppose the disease to be communicated through their household articles, ordinarily a jar of ghee, from one side of the country to another. This is only part of their general belief in the contagious nature of the malady, and in fixing upon the article of traffic as the vehicle of contamination, they forget the more direct medium of the carrier of it, ignorant of the fact that non-susceptible persons may carry about them, as in the case of jail fever, effluvia sufficient to infect others, while they themselves remain outwardly in health.

Some marks of the disease are described upon native testimony, amongst others an appetite for bitter things; this was not observed but may exist nevertheless, depending upon the deficiency of saliva as well as of other secretions, by which the sense of taste may be impaired and only to be stimulated by pungent substances; all such symptoms, as precursory, merit attention.

The Commissioner of Kumaon in 1836 (Appendix B. No. 47, para : 4), notices the opinions of the natives as to the origin of Mahamurree, and the event narrated fixes the first appearance of the pestilence. The description also sufficiently indicates the ordinary natural causes that are ever found to generate or give acrimony to pestilential sickness, namely a large congregation of people, crowded for days together at a public ceremony, and the bulk of these people inevitably predisposed to malignant septic diseases by bad and insufficient food, fatigue, exposure and filth, to all which evils the pilgrims are well known to be exposed up to this day. For it is most probable, that the Mahamurree commenced in the crowd of these wretched devotees, among whom a few deaths in excess or any additional sickness would not be marked ; only when a few brahmins had become the victims to the same infection would the visitation be thought the penalty of "maimed rites" from having fallen upon the sacred caste. It has been said that the pilgrims still pass with impunity through villages infected with Mahamurree, but the question has not been sufficiently considered or enquired into; they may pass through infected places without apparently suffering an attack, and yet they may carry with them an infection so caught, which may remain latent for a time, and ultimately at a distance prove fatal in numbers that are unknown and unattended to. This may be one cause, being yearly renewed, for the disease having lingered in the district for such a long series of years.

The same paragraph further notices a curious fact, fully believed in by the natives up to the present time, "that every where it appears first to have attacked the rats, and then the men." No other animals have been observed to be affected in the same manner, or by the epidemic generally; and this belief in the destruction of the rats is so universal, and so confidently asserted, that it is difficult to withhold giving credence to the fact. If not true, the fiction is a very singular and extensive one, raised for no very obvious purpose. An opportunity of determining the truth was not gained on the present visit, because no sudden invasion of any village by the disease occurred for observation during the month of May ; it was ascertained however, that in April the village of Mason had been deserted by the inhabitants in consequence, not of the disease breaking out or any death within the place arising from it, but only of the usual fears caused by the death of the rats. This village was visited and found empty ; the people were living on the side of the hill opposite, in small huts considerably apart; they visited the lower grounds during the

day to reap their fields, but on no account would they remain in the village in the night, avowedly from superstitious fears. Where a forerunner like this of human sickness has neither been traced out nor disproved since 1836, when it was first described upon native evidence, on which it still rests, it may be futile to attempt a solution of the coincidence, supposing it real. This murrain may be caused by poisonous food, or by mephitic vapours, and, in want of all proof upon the former, the probability is in favor of the latter; a search after these might lead to some discovery on the unknown agents of the production of Mahamurree itself.

Several authors have at various times propounded, as the causes of epidemics in India, different terrestrial influences affecting the several districts concerned; and in regard to these it may suffice to say that by the future enquirer may be found in Gurhwal all the sources of such influences. Malaria is rife in every valley and ravine, the rapid geologic changes so conspicuous on the surface of these hills leave it to be inferred that the same, or other chemical actions, are going on internally, and may give rise to morbific products; terrestrial electricity, assigned as a cause in Southern India, may be elicited by these changes, or by other agency; volcanic air, proposed as the origin of sickness in Scinde, cannot be wanting; for though no active volcanoes exist, there occur frequent earthquakes* to facilitate the discharge of volcanic exhalations. But upon all these subjects discussion is avoided; the materials are deficient, even if there were felt the inclination and ability to pursue it. The object of the present investigation has been entirely practical, and it may be left to those who come after to put forward theoretic opinions upon this disease.

12. The difficulties have been very great of this enquiry, carried on as it has been by unassisted labors, and without the aid of any precursor to guide me; this will be the extenuation for any imperfections in these Notes. To shew the peculiar manner of the proceedings, and the personal exertions made to find out the few scattered cases in so wild a country, a journal of the transactions of a few days will be submitted for the information of the Medical Board.

(Signed) C. RENNY,

*Superintending Surgeon, Meerut Division.*

*August*, 1850.

* Two earthquakes were felt this year, 1850, generally over the province of Kumaon, one on the 15th April, the other on the (13th ?) May.

# APPENDICES TO THE REPORT

ON

# MAHAMURREE.

# APPENDIX.

*Extract from* DR. RENNY'S *Journal of Proceedings upon a journey into Gurhwal, to enquire into the disease called Mahamurree.*

*Bhoongdar Bungalow, Thursday, 9th May,* 1850.—Took a steep and long march this morning from 4 to 10 A. M. over the mountain at Chuprakote Gurh (or Fort,) down the opposite valley across the stream, and up the other mountain side, to the village of Duddolee, reported to have been so unhealthy. It is for the hills a large place, now deserted, in which the Mahamurree appeared in 1849, but only attacked the inmates of three houses. The people from all the others fled immediately to the forests, where some few also died. There are no sick to be found at present. The fields above the village are cultivated, and now full of grain uncut, the lower fields have all been let go to waste. I found some of the villagers at work, near and in the village, and they are now beginning to return to it during the day, having had performed the usual poojahs and sacrifices for the safety of the place, under the auspices of a very ill-looking Jogee, very young for such an office; but I was assured the inhabitants would still not venture to stay in the village during the night. The situation of the place is healthy, high, and well aired. On the west side is a swampy ravine, such as is seen everywhere in the hills, caused by the running springs; here they steep their hemp at the proper season. In the list of deaths given to me as having occurred in 1849-50 up to 28th April 1850, the number for Duddolee, (the fiscal division includes the whole mountain) is put down at 25, but more than half these occurred out of the village along the same mountain side. Thus 14 died at a place in the forest, half a mile or more from Duddolee, called by two names Khor or Gemindeah, and respecting which I had the best description, yet given to me, of the career of the sickness. Here were only two houses or long low huts occupied by two separate families connected with each other, the heads

being two brothers, composed of 16 souls in all, old and young, and the present instance exemplifies their crowded mode of living, for these two huts had to contain, besides 16 individuals, 30 head of cattle, large and small, at the worst season of the year. In these two huts Mahamurree commenced about ten or eleven months ago, corresponding to the time it appeared in Duddolee, and the full circuit of the disease was here better seen than on any other occasion brought to notice; for in general the healthy or unattacked fly to the near hills or forests, leaving the sick to their fate; but at this place the 16 residents kept together till 14 died, and one adult only, a man of about 30 years of age or more, with his female child of five or six years old survived. The casualties however were spread over a period of five or six months from July to December or January. First two died consecutively, then after an interval four, then three, and so on, (it is vain to attempt the precise dates) but the whole number of 14 died during several months,* and surely this looks more like a virulent infectious fever than a contagious plague. The whole story is a domestic tragedy. At last the survivor in a sort of religious or superstitious despair, shut up the 30 head of cattle, buffaloes, cows and goats in the houses, set fire to the whole and burnt them down. He then moved with his child lower on the mountain, and built a hut in the forest. There I saw the child on my way to Duddolee, and the father was brought to me on my return. He gave the usual rude unsatisfactory description of the sickness, that it commenced with fever, and especially with severe headache (this last symptom he dwelt upon particularly) then occurred vomiting and purging, and at length swellings arose in the neck, or armpit, or groin, and death took place in three to *five* days. This is the only witness who named *five*. In every description I have yet had of the disease, the appearance of buboe is spoken of as fatal. This is contrary to what is observed of the true plague, in which buboes suppurating are often critical and salutary. I have not as yet had any mention made of petechiæ, blotches, and such like, nor do I raise the question, leaving the detail to come out naturally if there be foundation for this variety of symptom. All the natives agree hitherto that there has been no particular disorder or mortality among their cattle, but they

* The material facts are confirmed by the written report made to the Magistrate at the time; some discrepancies of no moment appeared in this. It was reported that a woman had accidentally set fire to the huts. This was a native fiction to smooth away dreaded magisterial anger. The occurrence as stated was told by the survivor.

universally agree that the Mahamurree is preceded or accompanied by a great mortality among the rats in their houses. The putwarree of Duddolee very strongly affirmed the one event having foreshown the other in that village. This question I put to the sole adult survivor of the two families, first indirectly and then directly. He acknowledged he had seen four dead together in the huts, but did not know of more, and even this number all at once in a house might raise the belief of its depending on some unusual cause where means are not taken to destroy the rats. The three infected houses in Duddolee had been burned down lately, that is the wooden roofs of two effectually, and the other slated roof partially. I am inclined to think this is the proper means of expurgation, in attempting to eradicate the disease by purifying the close houses of the villagers; and this, whether we look on the mode of propagation as contagious or infectious. Every house in which disease appears should be burnt down, if not the whole village. The walls may stand, it will be sufficient if fire be introduced, and the roof will give wood enough for the purpose. It were well if the fires were to be extended to the dung-hills outside their houses, if they cannot be removed to a distance. They are quite suffocating in passing through a village. As yet I see they collect them carefully for manure, and about here spread them very industriously over their fields; what they may do in higher Gurhwal I do not know.

P. M. Some actual cases of Mahamurree, reported at a distance in another direction, to be visited in the morning.

*Bhoongdar Bungalow, 10th May*, 1850.—Out from 4 to 10½ A.M., went to Mason, three miles or upwards, two miles further on the high road to Kuncour, and then into the forest. Mason is a large village on the left hand of the road, situated on a detached spur from the mountain on the south side of the valley, with much cultivation below it. To attend to this and to cut the grain at this time, the people come down from the forest in the day time, and return in the evening, afraid to stay in their houses. The village is now totally deserted by the inhabitants from fear, not of the actual invasion of Mahamurree, but of murrain among the rats, and the occurrence of four or six deaths recently in their neighbourhood, in a glen across the stream, running up to the north, on the right hand side of the road. This glen is also called Mason as belonging to the lands of the village, but has also a distinct name, Mycoollee. At the opening of the glen is a village of three or four houses through which the high road runs; these are now deserted, and two

houses were pointed out farther up the glen in which deaths had occurred from Mahamurree. In one it was said the dead bodies still remained, the sick having been left alone to their fate. The neglect of the living sick may not be overcome under their present fears, but the abandonment of the dead ought to be stopt by the Civil power, and the inhabitants forced to consume them by fire. This may be done sometimes by burning the house itself if the roof is of wood, but it may also be done with safety outside by throwing billets of wood first over the body, and afterwards throwing fire. The distance necessary to effect this is not dangerous whether the disease causing death may have been contagious or infectious. The fears of the natives are natural but ought to be removed, and for this end a little compulsion is necessary.

The object of this day's journey was to see two cases of sickness, reported to be Mahamurree, among the inhabitants of Mycoollee, living out on the face of the mountain above Mason and to the west of it. They were reported yesterday, and fever medicines were then given to be administered to them. One, a boy, died in the evening, the other, a girl of eight or ten years, is now said to have vomited the medicine when given. A fresh case, however, was presented, that of a woman of middle age, attacked since they moved into the forest, seized in fact only yesterday, (9th May), in the evening, after having been down at field work during the day. The symptoms, as now seen, would in the plains be taken as those of common fever, heat, headache, restlessness all night, shivering in the morning, and prostration of strength. The severe headache was repeatedly mentioned as the chief complaint, the shivering of the body was not visible, but a fire was lighted close to the patient for this reason or for the cold of the morning. No swelling of any gland, nor pain indicating any thing of the kind was acknowledged upon repeated enquiry. I felt the pulse which was quick but not weak, the skin was dry and hot, the eye* was blood-shot. The sick person was sitting up when we arrived, and continued so during the examination. As some nausea was evident while we stood near, an emetic was administered which I gave with my own hand, other medicines were left to be given during the day and following morning. In the plains this would be a simple fever and easily stopt, but it may readily be imagined that the exposure to the heat of the day, the cold of

* The reflection arose afterwards that this was a case suitable for early bleeding; but it was the first one ever seen and gave no impression of the virulence of the disease. It afterwards proved to be Mahamurree from the infallible mark of swelling, which, however, came late: death followed about the third day.

the night, and the want of shelter either from the ground or the sky, even at this mild season of the year, will aggravate every symptom. The deficiency of all comforts must alone destroy the sick of such miserable people, although this patient was fortunate enough to be tended by a daughter of twelve or fourteen years of age, a very unusual thing amongst these villagers. It should be mentioned that the dandy coolies and chuprasies objected to accompany me from the high road into the forest. I was attended by the Native Doctor from Pasree, Pursun Singh, and the Compounder from Almorah, Bhejah Singh.

We afterwards went further into the woods to see the other patient, a thin girl of eight years or so, who had medicine given to her yesterday which was rejected from the stomach. She was attended on very tenderly by her mother. The disease was of the third days' continuance, and although the people had said she was better, there was no mark of any beneficial change. Headache was here also much complained of, and a shivering motion of the body was visible; there was great languor, a disinclination to motion, (it did not amount by any means to coma, as the child attended to every thing said by her mother, roused herself and then dropt to rest) the pulse was rapid and weak, the skin as usual dry and hot. The replies to questions were not given by herself but by her mother, and the symptoms therefore were not so minutely ascertained. In this girl the disease was evidently more advanced, and she was in a much weaker state; still in the plains the case would not be thought a serious one, nor involving any thing unusual on which to give an unfavorable prognosis, unless for the appearance of a swelling in the groin on the left side. There was a general tumefaction of the part running from the crest of the ileum to the pubis, rather on the edge of the pelvis than the groin, and in the middle of the swelling a gland was felt to be hardened. This I touched and pressed with my own fingers, it did not seem tender or painful, it was not much enlarged, only to the size of a small nut, the whole action very indolent. The commencement of this swelling was mentioned yesterday by the people who brought the report; therefore it shewed itself on the second day. The case did not exhibit any indications for active treatment under the circumstances of exposure and distance from observation, some fever medicines were left with them, but it is doubtful if they be given as directed, since before us the girl resisted taking what was given.

*Bhoongdar Bungalow, 10th May,* 1850.—Appeared Gubnoo, cultivator, inhabitant of Muhrorce, a stout healthy looking

man of 26 to 30. The village of Muhroree was attacked with Mahamurree in August 1849 up to December (Sawun to Ughun), 61 died in all, from first to last. He himself, Gubnoo, was attacked in November, and was the only individual who recovered. Very minute enquiries were made upon the disease, which were answered generally by the native expression that he was insensible, (be hosh): this lasted for nine days. The first symptom he mentions is severe headache, then fever, upon the third day a swelling arose in his left groin, which went on to suppuration, and was opened by a neighbour on the 14th day of his sickness. He still bears the cicatrice in the middle of the left groin. On particular questioning he says that the person who opened it suffered no sickness, and is still alive. He took no medicine, his only food for nine days was water and a little sugar. The people all left the village and did not return till January; their cattle did not sicken. He distinctly says that *after* two children had first died, the rats were found dead six or eight in a house, no other animals suffered. He knows of no other person who has survived from an attack of Mahamurree. Two others of another village have been mentioned, neither of whom has yet been brought to me.

*Bhoongdar Bungalow, 11th May,* 1850.—A report has been brought this morning that the child seen yesterday is dead; that having taken place after three full days' sickness. There was no such mark of speedy dissolution in the child yesterday. The cerebral affection was the most prominent symptom, but it was not coma, delirium, or incipient effusion. The child certainly understood its mother's words, and even indicated its modesty under examination. The most remarkable nature of this disease therefore is its sudden termination with outwardly very little deviation from health. Another fresh case is reported among the people on the mountain-side who had withdrawn from Mycoollee. I intend to pitch my tent to-morrow on the road towards Kuncour, at the top of the mountain beyond where these people are, and to visit them on the way.

*Bhoongdar Bungalow, 12th May,* 1850.—Packets of official letters came in late last evening, that have detained me here. A case reported this morning below Budolee; sent Native Doctor, Pursun Singh, to ascertain. The case seen by him, and described to be only the threatening yesterday of a common fever, the man being better to-day.

*Kuncour, Monday, 13th May,* 1850.—On passing over Khundia Khal this morning I visited the poor people from

Mycoollee, who had moved further up the hill, in consequence, they said, of buboes* having the day before broken out on the woman whom I first saw on my visit on the 10th. She had, I now understood, been found dead this morning, and the sudden fatal termination of symptoms, such as they appeared three days ago, must be viewed as altogether unaccountable under present information, and must shew that only a steady course of observation of this disease in its earliest stages, with *post mortem* examination, can be of any avail to disclose the functional causes of disease. The daughter who had attended her mother complained a little of headache, but did not appear unwell; the fact of her having so attended was held sufficient to exclude her from the rest of the people, who threatened to drive her away. Advice was given to them to purify her by bathing and changing her clothes, and to keep her apart for some days, not to abandon her entirely.

At some further distance was seen another case of this disease, in a young married woman, of the same party from Mycoollee, who was alone and apparently deserted; at least a male relation (not the husband) who showed us the place would not approach near. Here the disease as now declared was of the third day, but its course must be very insidious, for there was little ostensibly to mark severe disease. In this case the first symptom of all was the appearance of an external swelling; then followed headache and fever; the former was described as sharp pain and dizziness, the latter was not severe as to heat of the skin or state of the pulse, which I felt to be moderate though languid; the tongue was white and much loaded, the eye was clear, and the chief complaint was a feeling of great lassitude; yet the patient was quite sensible, raised herself when desired to describe her ailments without sinking back again, and gave clear replies marking a sense of her condition. The swelling, or gola or golee as they called it, was hardly to be termed a buboe; it was a diffused swelling across the upper and front part of the thigh, much longer across than in width, quite out of the hollow of the groin. It was not touched, as the patient was from the first averse to shew it. In this case there was no shivering as in the two former; possibly the greater heat of the day was the cause. Suitable

* So I distinctly understood. The Native Doctor said otherwise at Kuneour, or rather that he did not hear it said so. The utmost pains therefore were taken on the way back to determine this fact exactly. The Compounder, Bhejah Singh, assisted in interpreting to avoid any possible mistake. It was twice clearly repeated on the same morning that one or more buboes had broken out in this woman, hence their renewed fears.

medicines were left to be administered, but it is most disheartening to attempt remedies where they are palpably so powerless, and where the main accessories of shelter, attendance, and local comfort are so entirely wanting. It was intended to have fixed the camp at or near the top of Khundia Khal, within visiting distance of the place on the mountain where the sick are, but no water could be found; afterwards the place for halting was discovered to be so far on the road, that it was thought advisable to come on to Kuneour. This unfortunately removes me from inspecting this last case, or from learning of others.

*Kuneour, 14th May,* 1850.—No intelligence nor rumour of the disease at this side of the mountain or at this place: I seem to have got out of the sphere of it entirely, and have written to the Assistant Commissioner at Paoree on the subject.

*Kuneour, 15th May,* 1850.—Business of the inquiry completely at a stand; I intend to return to Bhoongdar to-morrow, and have sent for any cases there may be at Sarkote, of those who have recovered from an attack of Mahamurree, having been told at Nainee Tal there might be some; I shall examine them at Bhoongdar, and afterwards mean to make search for cases at Bergong on the south of the high road, where the disease has been reported; I can also go from Bhoongdar to Lobha, if necessary. No fresh report of sickness from Muhroree. The head chuprasie has gone round there and by Chandpore to rejoin at Bhoongdar.

*Bhoongdar Bungalow, 16th May,* 1850.—Finding the time lost at Kuneour and no intelligence nor sight of the disease, I determined to return here, with the view of going direct to Lobha. On crossing the Khundia Khal, on the side towards Mason, I learned that the case of the young woman I saw on the 13th had also proved fatal, during the night, it was said, after I saw her, but from the state of the corpse I should think later; for I performed the duty of going close up to the body* to witness the fact, and to give an example to the natives. In either event, whether the time of death was 24 or 48 hours from the time of examination, it is not easy to explain the cause of it from the symptoms observed, where there was so little derangement of the functions of health; the most obvious

* Nubbee Buksh, Native Doctor from Mooradabad, and the Compounder from Almorah accompanied me. The Native Doctor, from after-conversation, had particularly remarked black patches on the face and chest. I also noticed the latter, but considered them as having arisen after death—certainly there were no such marks on the previous visit.

inference to be drawn is, that it is the operation of some morbific poison, with little or no reaction of the system to counteract it. The total neglect of the sick by their friends, forcibly shewn in the present instance, and the terror thereby impressed upon them, must no doubt hasten the catastrophe. In the two first cases the attendance was, as far as I can hear, unexampled, in the one by the daughter over the mother, and in the other by the mother on her child; and here I was told that both these parties continued unaffected by the disease, for I did not see them, the Mycoollee party having again changed their ground in the forest owing to this last death. This terror of the people must be overcome, for the over-precaution is unnecessary, and communication might be maintained at a moderate distance. The dread must be overruled, especially too, in regard to their treatment of the dead, for hitherto they have left the bodies to be destroyed by wild beasts, or to rot in the open air, sometimes within the villages, and undoubtedly, where formerly the mortality has been very great, this exposure of the dead has been a chief cause of the disease being kept up in the country. The source of pestilence must be destroyed, and it may be done with perfect safety to the living. In the instance of the body of the young woman seen this morning, wood (and plenty was at hand,) could have been thrown upon it from the distance to which I approached or much further, and fire afterwards; but it was left there and would probably not be consumed, although strict injunctions were given. Out till 10 A. M. in the forest, in expectation of seeing another case reported, but on enquiring it proved to have been only a slight headache and a temporary ailment. No other cases of Mahamurree among this party.

*Bhoongdar, 17th May,* 1850.—Kooto, chatace maker of Sarkote, was brought to me, middle aged man, says Mahamurree appeared in the village about three years ago, when several of his family, male and female died; the rats in the house first sickened and died, he says, threw up blood. After the first death in the family, they left and went into the jungles, and did not return to their house for six months; he was himself attacked with Mahamurree; had fever and pain in the bowels, severe headache, and was insensible for three days; on the third day a swelling arose in his left groin, on the fourth day he got well, and the gola disappeared without inflaming; he had no black spot or blotches on his body, nor ever heard of any one having them; there is no Mahamurree in that neighbourhood at present; 43 people died at the time he was ill.

Beejo, lohar of the village of Sarkote, had Mahamurree when it attacked his house and village, (five years* ago he says) two of his family died first, and they then fled into the forest. He was ill three days; on the second day a swelling appeared on the middle forepart of his left thigh, which continued for three days with great heat-like burning, and then went off of itself without any remedy being applied; only about 20 people escaped in the village without having the disease; he and the other man were the only survivors of those who were attacked. This man too says the rats died at the first irruption of the pestilence; did not hear of or see any one of those who died, surviving to the fifth or sixth day, the fourth was the very utmost.

The Thermometer in an open verandah with northern exposure stood this day minimum at sunrise 65°, maximum at 3 P. M. 83°.

*Bhoongdar, 18th May,* 1850.—A fuller report came in yesterday from Bergong that five had died there, but at present there was no sickness; one man had recovered among those seized. In his case a buboe formed and came to suppuration; it had been opened, and being now discharging matter he could not walk so as to show himself here.

P. M.—Chuprassie Narain has returned from Chandpore, and reports that in that pergunnah a few cases of Mahamurree have proved fatal in May, at Pindooalnee and another place, but there were not more than five, and other fresh cases would be difficult to discover.

Finding that much more time and labor must be devoted to find out new cases than I can apply of either, and that the disease is at the present time to be witnessed only by accident, if it has not abated in this neighbourhood entirely, and that this is the view also taken by the Assistant Commissioner, I have determined on returning to Almorah.

*Camp Deghat, 19th May,* 1850.—Ther: maximum 95°.

*Massee Bungalow, 21st May,* 1850.—Thermometer maximum 87°, minimum (sunrise) 64°. When last at this place there occurred a good field for observing the general appearance of the common people of this part of the country at a fair

* As this was in 1846-47, it might be the fifth year, according to native computation.

or melah held in the bed of the river for a single day, not for purposes of traffic, but apparently for some religious Hindoo tradition. They came in tens and twenties or more, the men and women together as it were of a house or small village, with flags and the usual noisy music, the chief male personage performing a sort of progressive revolving movement before them, with a naked sword in his hand which he waved round him as he advanced; they seemed to come chiefly from the south, along the valley of the Ramgunga, judging from their way of collecting and their going off again in parties in the afternoon; they may be taken therefore to have been the inhabitants of Kumaon Proper, on both sides of the river, with only a small admixture of poorer looking people from the north; there might have been collected from 3,000 to 5,000 adults of both sexes with not many children; they were attired no doubt in their best, but this must be viewed only as a temporary cloak upon their generally uncleanly habits; they behaved in a quiet well regulated manner, and their conduct gave a favorable impression of the quietude of the Hindu population (if there were any Musulman villagers they were not recognized); the whole gave an advantageous idea of the general condition of the inhabitants of Kumaon Proper, and their general comforts and prosperity. Seeing on that day so large a collection of healthy people on the borders of Gurhwal, I could not believe a *contagious plague* to have raged for nine months within 20 miles of the assemblage, for it must have made its way there by some of the many insidious modes of its propagation and extension. The place where I actually found the disease was not above 25 miles off, and Muhroree was much nearer in another direction and in a straight line. Having since then seen some of the inhabitants of not the worst part of Gurhwal, I am struck with the marked difference between the two districts, and the great discrepancy in the civilization of both people. The part of Gurhwal too seen by me, is not the most uncultivated. Beyond the Pindur I understand, and towards the snow, the people are less cultivators than laborers, acting as coolies to the Bhooteahs, or other traders further north. They are a poor despised race, living on a precarious and coarse diet, and I do not wonder accordingly, that a putrid disease (such as I have lately seen, and perhaps not in its most concentrated form), should have broken out amongst them and have hung over them so long.

*Camp, 22nd May,* 1850.—Clouds and rain to-day—maximum Thermometer 72°.

(Signed) C. RENNY,
*Superintending Surgeon.*

# APPENDIX A.

## CORRESPONDENCE LEADING TO DR. RENNY'S DEPUTATION.

FROM J. STRACHEY, ESQ.,

*Senior Assistant Commissioner, Gurhwal,*

To J. H. BATTEN, ESQ.,

*Commissioner of Kumaon,*

*22nd December*, 1849.

SIR,

I beg to bring to your notice that the disease called "*Mahamurree*" has broken out with great virulence in Puttee of Chuprakote in this district.

It first made its appearance during the last rainy season, and up to the present time there are no symptoms of its cessation.

The disease has not spread through the country to any alarming extent, but in particular villages that it has attacked it has proved most fatal. In Muhrorce and Dudoolee, two of the most considerable villages in Puttee, ninety-one persons are reported to have died within the last four months, probably 25 per cent. on the total population, and these and several other villages have been entirely deserted by the survivors.

2. My immediate object in now addressing you on this subject is to propose that an application be made to Government that a competent Medical Officer be deputed to investigate the disease, with a view to the determination of its real character, and to the suggestion of some remedies and sanatory measures which may be likely to check its progress.

3. I have at present neither the means nor the time at my disposal necessary for giving any detailed account of the nature, so far as it is at present known to us, of this disease. It is sufficient that I should state the following facts. That for about 30 years past there has existed in Kumaon and Gurhwal a disease known by the local name of *Mahamurree*, apparently identical with the plague of Syria and Egypt, the characteristic symptoms being violent fever of the most contagious nature, always accompanied with swellings under the armpit; the disease ordinarily seems to reach its crisis on the third day after its first appearance in the persons attacked. No remedies seem to be known that produce any good effect, and altogether it is impossible to exaggerate its virulence, or the terror which it inspires.

4. It appears to me that an enquiry regarding this disease has been neglected far too long already, and that not only as a question of considerable scientific interest, but as a matter of humanity, and of real and practical importance, a thorough investigation ought no longer to be delayed. Putting out of the question all considerations of present benefit, there is ample cause for enquiry as a measure of precaution for the future.

It would be foolish to assume that because this disease has hitherto confined its attacks to particular localities and particular climates, it must do so always. Experience must, I fear, rather lead us to different expectations.

I need hardly add that no ordinary qualifications would be required in a person who might be chosen for such a task. Medical knowledge and skill will not alone suffice; with them must be combined no common judgment, and the determination to face a personal risk which may be by no means an imaginary one.

I have, &c.,

(Signed) J. STRACHEY,

*Senior Assistant Commissioner.*

GURHWAL:
S. A. COMMISSIONER'S OFFICE,
*December 22nd*, 1849.

No. 1 OF 1850.

FROM J. H. BATTEN, ESQ.,

*Commissioner of Kumaon,*

To J. THORNTON, ESQ.,

*Secretary to Government, N. W. P.*

*Head Quarters, dated 1st January,* 1850.

*General Department.*

SIR,

I have the honor to forward for the consideration and orders of the Hon'ble the Lieutenant Governor, the accompanying Report (in original) from Mr. J. Strachey, Senior Assistant in Gurhwal, on the subject of the fatal fever now raging in one part of his district.

2. Unfortunately when the disease was at its height in October and November, Mr. Strachey was induced to believe that the accounts of it were grossly exaggerated, and mentioned that belief to me as a reason for his silence on the subject. Recently, however, my own attention was forcibly drawn to the mortality prevailing in Chuprakote, and my own call on the Senior Assistant for immediate and full enquiries must have crossed his present report on the road.

3. Neither Mr. Strachey nor myself now entertain any doubt as to the real state of affairs, which is truly deplorable. The natives themselves are such firm believers both in infection and contagion, that a village visited by "Mahamurree" is entirely cut off from its neighbourhood, and its inhabitants would inevitably be sacrificed to the fears and rage of the country people, if they attempted to leave the forests and caves adjacent to their own desolated homes. Thus when food fails, the villagers are obliged to go to their own barns for a supply, and each such visit renews the frightful mortality among them.

4. The plague is undoubtedly coming lower and lower every year. It began near Kedarnath, in the snowy range, and for some years confined its ravages to pergunnahs Nagpoor and Budhan, in which last tract I myself recollect it alarmingly prevalent in the year 1837; in 1846-47 the "Mahamurree" found its way to the sources of the Ramgunga, in

Puttee Shobee, and almost entirely swept away the village of Sarkote,* situated at above 7000 feet on a high easterly spur of the great mountain Doodooke Tolee, (10,300 feet above the sea). At the same time a village in Kumaon Proper, near the source of the Cosilla in Puttee Baroke Rao, was visited, and the mortality was most dreadful. In 1847, a village within 15 miles of Almorah, (west) situated among the pine forests of the Sceahee Devee range, was attacked, and the same melancholy results followed. At the latter end of 1848, a few villages in pergunnah Danpoor, along the fatal line of the river Pindur, were threatened with this disease, or rather with its return, for they had shared in the ravages of earlier years with their Budhan neighbours; but the alarm subsided, and, on the whole, the year 1848 and part of 1849 may be said to have been remarkably free from Mahamurree throughout the province.

5. A reference to the Balance Reports from Zillah Gurhwal will prove that the existence and effects of the disease have been periodically brought to the notice of the superior authorities. His Honor will find some account of the Gurhwal Mahamurree in the Pali Plague Report, published during Sir C. Metcalf's Governorship, while my own Settlement Report of 1842 makes marked mention of the same disease.

6. Hitherto we have, I think, been justified by facts in believing that however contagious or infectious the Mahamurree might be within the *circle of population locally subject to its visitation,* and that, although in every case of fresh outbreak in a new place, the people have affected to trace the infection from Budhan, &c., (generally through a jar of ghee brought from that quarter) still casual travellers, and especially pilgrims, might pass through a Mahamurree village without risk. I do not know of any mortality from this cause among the numerous pilgrims to Kedarnath and Buddrenath. Mr. Commissioner Traill never delayed nor altered his marches in consequence of Mahamurree, except so far as it affected his supply of coolies; European travellers have, within my own experience, counted the unburied and unburnt corpses in Budhan villages, and have with their servants escaped unscathed; and up to a very recent period, I myself would not have avoided† any route on account of this disease.

* Sarkote is nearly opposite the well known house built by Mr. Lushington at Lomana, in Lobha, now my property and Mr. Strachey's.

† And only now would avoid because I am a husband and father.

7. The question now arises, whether at the present time (whatever our past belief may have been) the Mahamurree disease of Chuprakote is a local fever of extreme malignity, or whether it is a *plague*, the spread of which may justly be dreaded. In investigating this point humanity demands whatever attention can be given on the subject of *cure*, and of remedial and preventive measures in general.

8. I need hardly remind His Honor, that Upper India occupies the Plague Latitudes of the world, and that its escape from the visitation is supposed to be owing to its *peculiar heat*; this latter peculiarity certainly does not belong to the villages in Chuprakote, or indeed to three-fourths of the localities which have been fatally visited in Nagpoor and Budhan. Muhroree is 6200 feet above the sea in a glen at the western base of Doodooke Tolee abovementioned; Dairee is near 7000 feet in the southern face of the same mountain; and Dudoolee is quite as high as Almorah. If therefore it is only heat which saves the Dooab and Rohilcund from the "plague" of Syria and Egypt, we have in Kumaon and Gurhwal both a climate and latitude exactly suited to the disease.

9. I am myself of opinion that the disease of which we are treating is in its visitations similar to sporadic cholera, that it only attacks certain localities, and that its selection of those localities is capricious,* that the predisposition of individuals there residing is fearfully increased by the dirty and warm clothing of the inhabitants, and by the high and rank vegetation,† which surrounds their dwellings; that the disease *attains* an infectious form after its arrival in such places, and that the predisposing causes being absent or less in the white-washed villages, and among cotton-clad bathing inhabitants in Kumaon Proper, (dirty though they be) the Mahamurree fever has hitherto spared (with the exceptions formerly mentioned) the latter district. Without this particular plague, Kumaon is sufficiently unhealthy; nor do I believe that any part of the mountains from Cashmere to Sikkim is free from fevers of the most malignant character. Knowing the state of affairs within a few miles of those sanataria, I have often been astonished at the unsuspecting ignorance even of medical men at Simla, Mussouri and Nainee Tal, who talk of the "line of fever" and the "limit of cholera" &c., which they fancy they can point out below their feet on the southern aspect of

* Humanly speaking. † Chiefly hemp.

those hills. Two of the villages named by me in para. 8 are close to a locality* especially selected by myself and family as the most desirable spot in the whole province for a country-residence, being high, open, yet beautifully wooded, and with a rapid clear river running through the grounds.

10. A matter of such grave moment should not, I agree with the Senior Assistant, be any longer left to the opinion of the local Civil Officers, whether as in my case the least gloomy one, or whether as apparent in his case one suggestive of alarming doubts and comparison.

11. I therefore solicit the earnest consideration of the Lieutenant Governor upon the painful subject now brought to His Honor's notice, and I respectfully join in Mr. Strachey's recommendation that a competent medical commission be appointed to examine into the Mahamurree disease of this province.

12. The medical men now resident in Kumaon are Mr. Faithful, Mr. Banister, Mr. Shillito, (on leave at Nainee Tal), Mr. Guise, (who expects, however, soon to be relieved from the charge of Nainee Tal by, I believe, Mr. Dunbar), and Tumeez Khan, Sub-Assistant Surgeon. Of the professional abilities of any of these gentlemen I am not a competent judge; while, as truly observed by Mr. Strachey, many other qualities besides medical skill are needed in those who may be sent to investigate our plague.

I have, &c.,

(Signed) J. H. BATTEN,

*Commissioner.*

*Kumaon Commissioner's Office:*
CAMP BULLEEAH BRIDGE,
*The 1st January*, 1850.

* Cheena-khal near Chuprakote.

## No. 61 of 1850.

From R. THORNTON, Esq.,

*Assistant Secretary to the Government, N. W. P.*

To the MEDICAL BOARD, *Calcutta.*

*Dated Head Quarters, the 18th January,* 1850.

*General Dept., N. W. P.*

Gentlemen,

I am directed by the Hon'ble the Lieutenant Governor, to transmit the accompanying copy of a letter from the Commissioner of Kumaon, No. 1, dated 1st instant, and of its enclosure, reporting on the Mahamurree plague of Gurhwal, and to request that the Board will state what measures they would propose for investigating the nature of the disease.

I have, &c.,

(Signed) R. THORNTON,

*Assistant Secretary to Govt., N. W. P*

Head Quarters:
*The 18th January,* 1850.

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## No. 11 of 1849-50.

From the MEDICAL BOARD,

To the HON'BLE J. THOMASON, Esq.,

*Lieut. Governor, N. W. P.*

*Dated Fort William, the 28th January,* 1850.

Hon'ble Sir,

We have the honor to acknowledge Mr. Thornton's letter, No. 61 of the 18th instant, with copy annexed of correspondence on the subject of the Mahamurree plague of Gurhwal, requesting us "to state what measures we would propose for investigating the nature of the disease." In reply we would suggest that Dr. Renny, Superintending Surgeon of the division in which the Gurhwal district lies, should be directed to enquire into the history and nature of the disease on the spot, when he

visits it in the course of his approaching tour of inspection, as we consider him fully competent to conduct that or any other professional investigation that may be entrusted to him.

2nd. Should he however himself desire that others should be associated with him in the proposed enquiry, or if your Honor should consider that it would be more satisfactory to obtain the report of a full Committee, we would respectfully recommend that either Surgeon T. E. Dempster, of the 1st Brigade Horse Artillery, at Loodianah, or Surgeon Campbell Mackinnon, of the 6th Battalion of Foot Artillery, at Jullundur, and the Senior Assistant Commissioner, Mr. Strachey, should be associated with him in the investigation and in the preparation of the Report.

We have, &c.

(Signed) G. LAMB, *Physician General,*

(Signed) W. S. STIVEN, *Surgeon General,*

(Signed) J. THOMSON, *Inspr. General.*

FORT WILLIAM, MEDICAL BOARD OFFICE:
*The 28th January*, 1850.

No. 206 OF 1850.

FROM J. THORNTON, ESQ.,
*Secretary to the Government*
*of the N. W. Provinces.*

TO THE MEDICAL BOARD,
*Calcutta,*

*Dated Head Quarters, the 22nd February*, 1850.

*Genl. Dept., N. W. P.*

GENTLEMEN,

I am directed to acknowledge the receipt of your letter, No. 11, dated 28th ultimo, on the subject of the Mahamurree plague of Gurhwal, and in reply to observe that the Superintending Surgeon's report will be sufficient. You are requested to issue orders accordingly.

I have, &c.,

(Signed) J. THORNTON,
*Secretary to the Government*
*of the N. W. Provinces.*

HEAD QUARTERS:
*The 22nd February*, 1850.

No. 1062 OF 1850.

FROM J. FORSYTH, ESQ.,

*Secretary, Medical Board, Calcutta,*

To. C. RENNY, ESQ.,

*Superintending Surgeon, Meerut.*

*Dated the 4th March*, 1850.

SIR,

I have the honor, by direction of the Medical Board, to transmit, for your perusal, the correspondence in original, noted in the margin,* and copy of their letter to the Lieutenant Governor, No. 11 of the 28th January last, in reply to the request that they would suggest measures for investigating the nature of the disease known as the "Mahamurre" plague of Gurhwal. A copy of the reply of the Secretary to the Government North Western Provinces, is also herewith enclosed, No. 206 of the 22nd ultimo, from which you will observe that the Lieutenant Governor considers that a report from you on the subject will be sufficient. The Board therefore direct me to request you will have the goodness to proceed to the spot at your early convenience, and when you have concluded your investigation, that you will favor them with a report of the result for submission to Government.

* Letter from Mr. R Thornton, Assistant Secretary to Government, North Western Provinces, to the Medical Board, No. 61, dated 18th January 1850, with accompaniments.

2. The return of the original enclosure is requested with your reply.

I have, &c.,

(Signed) J. FORSYTH,

*Secretary.*

CALCUTTA: *The 4th March*, 1850.

# APPENDIX B.

## REPORT ON MAHAMURREE IN 1836.

No. 46.

FROM THE COMMISSIONER

*of Moradabad,*

TO THE ACTING COMMISSIONER

*of Kumaon.*

SIR,

During my late march through a part of the province, the prevalence of a sickness was mentioned to me by the Tehseeldar of Sirsenuggur and others, which in its symptoms, as described by that Officer, so much resembled the plague, as to induce me to request you will, after instituting any further enquiries you may deem necessary, favor me with a report on the subject. It was said to have been particularly fatal in the neighbourhood of Kumprag, and it would be satisfactory to ascertain the estimated number of deaths in the several villages in which it made its appearance, and to ascertain if it has since broke out in others.

I have, &c.

15*th February*, 1836.

No. 47.

FROM G. E. GOWAN, ESQ.,
*Commissioner of Kumaon,*

To S. M. BOULDERSON, ESQ.,
*Commissioner 3rd Division, Moradabad,*
*Dated the 25th April*, 1836.

SIR,

I have the honor to acknowledge the receipt of your letter, dated 15th February last, to the address of the officiating Commissioner Mr. M. Smith, calling for a report on the subject of a sickness which prevailed during the past year in the district of Gurhwal, and which appeared to you, from a description of its symptoms, to resemble the plague.

2. With the view of ascertaining the estimated number of deaths, as required by you, in the several villages which were visited by this pestilence, statements were ordered to be furnished by the putwarrees stationed in the interior: the result is given below. From that detail it will be seen that the greatest number of deaths occurred in pergunnah Budhan, on this side the river Pindur, and the fewest deaths in pergunnah Chandpore. The largest amount of deaths in any one village appears to have been in mouzah Doongurree, in the first named pergunnah, where 47 persons died; in mouzah Thuralee, of the same, 32 deaths occurred, and in Kumprag, also situated in Budhan, there were twelve fatal cases. Of other pergunnahs, the largest number in individual villages is 37 deaths in village Bumote, Puttee Mulla, Nagpore, and 24 in village Thuralee, pergunnah Budhan, across the Pindur. These returns have the appearance of being generally correct, though they may possibly be somewhat exaggerated from a desire, on the part of the malgoozars and others, to make out a good case for remission of rent.

3. The symptoms and peculiarities of the disease, as detailed by the Revenue Officers, may be briefly stated as follows. Its appearance was observed to be preceded by a mortality among the rats in the village; the attack is described as sudden, attended with fever, great thirst, and an eruption of buboes or swellings under the arms and behind the knees, with a desire to eat bitter things; besides being accompanied with the usual characteristics of cholera after the appearance of the swellings, and generally terminating fatally in the space of two, three

or four days. Those who recovered were very much reduced for a long period. The name given to the disease by the natives is the same as that by which the common cholera is known, "Mahamurree," though from the peculiar symptoms it would certainly seem to be distinct from that epidemic.

4. The origin of this sickness is dated as far back as the year 1880, Sumbut Æra (1823); when, according to the information of the Tehseeldar, the late Rawul of the temple of Kedarnath, in the performance of the religious ceremony called "hom," deviated from the rules prescribed by the shasters and in consequence died, together with the brahmins who assisted at the offering. The disease is said to have thence arisen, first in puttees Bamsoo and Mykhunda, which are in religious assignment to that temple, and afterwards to have spread to the other pergunnahs, and latterly to have appeared in Budhan; and that everywhere it appears first to have attacked the rats and then the men. It has now by all accounts disappeared in Gurhwal, and would not appear to have broken out afresh in any part of the province.

5. In conclusion I annex an Extract of a letter written on the subject by Mr. Assistant Surgeon Bell, who, though he never witnessed a case, had many opportunities of hearing Mr. Traill (the late Commissioner) mention the disease in question. He terms it a fever of a putrid character resembling the plague; it was ushered in with fever, great prostration of strength, and an eruption of buboes, or glandular swellings, over various parts of the body, the latter being one of the chief symptoms of the plague; it proved rapidly fatal, its duration in many cases not exceeding three or four days. "I am not aware (he concludes) if the disease observes stated periods, and then becomes epidemic, although I cannot assign any particular cause for the disease breaking out." Mr. Bell observes that it is no doubt much aggravated when it has commenced by a want of cleanliness on the part of the people, and an impurity of atmosphere engendered by allowing immense heaps of filth and dung to accumulate in front of their houses, in many instances serving the purpose of a ladder to reach the upper story.

I have, &c.,

(Signed) G. E. GOWAN,

*Commissioner.*

KUMAON COMMISSIONER'S OFFICE:
*The 25th April*, 1836.

*Statement of Deaths ascertained to have occurred from a prevailing mortality in Gurhwal during* 1834 *and* 1835.

| | *No. Died.* |
|---|---|
| Villages in religious assignment to the temple of Kedarnath, | 63 |
| Puttee Bamsoo, .. .. .. .. .. .. .. .. .. | 25 |
| Puttee Purkhundee, .. .. .. .. .. .. .. .... | 26 |
| Pergunnah Mulla Nagpore, .. .. .. .. .. .. .. | 76 |
| Ditto Tulla Nagpore, .. .. .. .. .. .. .... | 60 |
| Ditto Dussolee, .. .. .. .. .. .. .. .. | 26 |
| Ditto Budhan Pindur War, .. .. .. .. .... | 199 |
| Ditto Budhan Pindur Par, .. .. .. .. .. .. | 144 |
| Ditto Chandpore, .. .. .. .. .. .. .... | 14 |
| Total, | 633 |

# APPENDIX C.

*Letter from Superintending Surgeon* C. RENNY, *to* J. STRACHEY, *Esq., Senior Assistant Commissioner, Gurhwal, dated Kuneour, 14th May* 1850.

SIR,

In execution of the duty imposed on me of enquiring into the nature of the Mahamurree disease of Gurhwal, after remaining for four days at Bhoongdar, whence I extended my researches by personal visits in the directions of Dudoolee and its neighbourhood, and of Mason and the places above it, I have now arrived, as I have the honor to inform you, at this place. It was my intention to have gone towards Muhroree, upon Mr. Batten's suggestion, but as the disease appears to have abated in that quarter, the journey may be now unnecessary. Unless therefore you have any fresh information upon which to direct my course otherwise, I purpose returning to Bhoongdar, and thence perhaps going towards Lohba, although the reports made to me shew that the disease had not reappeared there or in the Chandpore pergunnah. It would almost seem that at this place I had got out of the circle of the present distemper, for I heard (and saw) much more of it above Mason, and of its being at Bergong, south or south-west of Deghat.

I have seen only one individual (he came from Muhroree) who had survived an attack of the disease. His information was of importance, and I had expectation of seeing others of the same description, having been told there might be some about Sarkote; I would point out that it is easier for these men to come to me than for me to reach them.

With much difficulty and personal labor I have been able to see three cases of the disease among the people who fled from Mycoollee near Mason, and they may be considered the genuine Mahamurree as they had the characteristic swelling. It will be my business to give my views to the Medical Board upon the whole facts as they may be further enlarged, but I think it right even at this time to state to you that in my opinion the disease

is not contagious plague. It is unquestionably a very pestilent fever, now endemical in the district, and occasionally running into an epidemic, and it is no doubt very infectious when many persons keep together.

To point out the means of eradicating the endemic is as yet impossible, and to correct the squalid and dirty habits of the people, which aggravate all their disorders, is very hopeless; there is however one sanatary measure I would recommend that may be immediately carried into effect. This is to burn down every house in which Mahamurree attacks one of the inhabitants. They generally abandon their houses, I have heard of only one well authenticated instance to the contrary, and facility is thus given of expurgating the huts by fire, which may be done by burning the roof, if a wooden one, or throwing more wood inside. This means of purifying infected houses (it will be useful whether we look to contagion or infection) has been already tried in some places, but not effectually and promptly; it ought to be enforced everywhere, and the advantage of it will be that the inhabitants may sooner return in safety to their abandoned villages.

Another essential measure, to be done at once, is to force the people to burn or bury the dead; at present they fly from the bodies in terror, leaving them to rot in the open air, and thus contaminate the neighbourhood, and so to propagate the cause of other sickness. There ought to be a strict police regulation that the dead bodies be burned without delay, and it may be done without contact of hands, and at an interval of space quite safe to the living; they may be consumed within the huts if left there, or even outside by throwing billets of wood from a distance. Some houses were pointed out to me at Mycoollee, near Mason, where cases of Mahamurree had occurred, and one particularly where one or more dead bodies were said to be remaining; this was close to the high road from Bhoongdar, and must stop all intercourse if permitted to continue as a customary nuisance. I am not sure that the two bodies of the patients seen by me above Mason were properly disposed of, although strict injunctions were given to the people when passing to Kuneour.

From the difficulty of finding the disease I might suppose it to be on the decline; at any rate from this cause my actual labors are much increased, and my prospects of completing any useful inquiry are greatly discouraged.

I have, &c.

*Letter from* J. STRACHEY, *Esq., Senior Assistant Commissioner, to* C. RENNY, *Esq., Superintending Surgeon, Camp* ——, *No.* 15, *dated Gurhwal, Senior Assistant Commissioner's Office,* 15*th May* 1850.

SIR,

I have the honor to acknowledge the receipt of your letter dated the 14th instant.

2. I have received no information that any deaths from Mahamurree have lately occurred in the pergunnahs of Lohba or Chandpore, and I believe that in the part of the district where you now are, you are much more likely to see and hear of the disease than you would be in any other quarter. It appears to me therefore unnecessary that you should give yourself the trouble and labor which a journey into Chandpore would entail.

3. With reference to the preventive measures which you have recommended, I have the honor to inform you that I have issued most stringent orders regarding the burning of bodies of persons who may die of Mahamurree, and I shall take care that this important point be in future strictly attended to.

4. As regards the destruction of houses in which a person has been attacked by the disease, I have requested the instructions of the Commissioner on the subject, not considering myself authorized to order the immediate adoption of this measure.

I have, &c.

# APPENDIX D

*Statement of Deaths from Mahamurree in* 1849-50.

PERGUNNAH CHUPRAKOTE.

| | | |
|---|---|---|
| Muhroree, .... .... .... .... .... | 61 | |
| Dudoolee, .. .. .... .... .... .... | 25 | |
| Tulla Dudoolee,.. .... .... .... .... | 3 | |
| Gaoree, .. .... .... .... .... .... | 3 | |
| Mason, .. .... .... .... .... .... | 4 | |
| Raolee, .. .... .... .... .... .... | 1 | |
| | — | 97 |

PERGUNNAH CHANDPOOR.

| | | |
|---|---|---|
| Pindwalnee, .... .... .... .... .... | 2 | |
| Lungta, .. .... .... .... .... .... | 6 | |
| | — | 8 |

PERGUNNAH BUDHAN.

| | | |
|---|---|---|
| Soonah, .... .... .... .... .... | 5 | |
| | — | 5 |
| Total,.. | | 110 |

(Signed) J. STRACHEY,

*Senior Assistant Commissioner.*

28*th April*, 1850.

To the above are to be added three deaths in the jungles above Mason in May, and four uncertain.

(True Copies from A. to D.)

(Signed) C. RENNY,

*Superintending Surgeon.*

No. 80.

FROM C. RENNY, Esq.,

*Superintending Surgeon, Meerut Division,*

To J. FORSYTH, Esq.,

*Secretary Medical Board, Calcutta.*

DATED SUPERINTENDING SURGEON'S OFFICE, MEERUT,

*22nd August*, 1850.

SIR,

In addition to my letter No. 73 of the 19th instant, I have the honor to submit, for the information of the Medical Board, the latest intelligence regarding Mahamurree, being Extracts of a copy of a letter forwarded to me by the Senior Assistant Commissioner, Gurhwal.

I have, &c.,

(Signed) C. RENNY,

*Superintending Surgeon, Meerut Division.*

SUPERINTENDING SURGEON'S OFFICE,
MEERUT:
*The 22nd August*, 1850.

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*Extracts of a Copy of a Letter from* J. STRACHEY, *Esq., Senior Assistant Commissioner, Gurhwal, to* J. H. BATTEN, *Esq., Commissioner, Kumaon, No.* 33, *dated Gurhwal, Senior Assistant Commissioner's Office, 8th August*, 1850.

*Para.* 1. I have the honor to inform you that as there is great reason for hoping that the disease has disappeared for the present, I have not considered it necessary to act on the authority which has been given to me.

*Para.* 3. The experience of the past year has shown me, that with the agency now at my disposal it is almost impossible to carry out any sanitary regulations that may be considered necessary, and even to obtain full information regarding the progress of the disease is by no means easy.

*Para.* 5. I take this opportunity of furnishing you with a statement* of the deaths which have occurred from Mahamurree in the several villages since the disease made its appearance last year.

| *Puttee.* | *Village.* | *No. of Deaths.* | *Remarks.* |
|---|---|---|---|
| Chuprakote. .... | Muhroree. .. .. | 61 | |
| ,, | Dudoolee. .. .. | 36* | * 25 deaths in Mullee Dudoolee and Khor (luga), 11 deaths in Tulla Dudoolee. |
| ,, | Gaoree. .. .. | 3 | |
| ,, | Raolee. .. .. | 1 | |
| ,, | Mason. .. .. | 4 | |
| ,, | Mykholee. .. .. | 12† | † Between the first appearance of the disease in the rainy season of 1849 and June 1850. |
| ,, | Bhyrgaon. .. .. | 6 | |
| ,, | Wulyanee. .. .. | 1 | |
| ,, | Khytolee. .. .. | 1 | |
| Total in Chuprakote... .. | | 125‡ | ‡ No deaths reported in Chuprakote since June 1850. |
| Chandpoor.. .. | Mujyaree. .. .. | 11 | |
| ,, | Pindwalnee... .. | 6 | |
| ,, | Lungta. .. .. | 8 | |
| Total in Chandpoor... .. | | 25§ | § Between 9th March 1850 and 12th April 1850. No deaths reported since last mentioned date. |
| Budhan. .... } Pindur Par.. } | Soona.. .. .. | 7 | |
| Pindur War. .. | Bumyala. .. .. | 2 | |
| Total in Budhan. .. .. | | 9‖ | ‖ Between January ( ? ) 1850, and May 1850. Last death reported in beginning of May 1850. |

In addition to the deaths here detailed three or four persons died in 1849, at Purkundee, puttee Lohba. No cases of Mahamurree have been reported as having occurred there in the present year.

*Para.* 6. A copy of this letter has been forwarded by me to Dr. Renny, Superintending Surgeon, for his information.

(True Extracts,)

(Signed) C. RENNY,

*Superintending Surgeon, Meerut Division.*

* This is to be taken as a corrected statement of deaths, in lieu of the one given as D. in the Appendix. Total 159. (Signed) C. R.

No. 1170 of 1850.

From J. THORNTON, Esq.,

*Secretary to the Government of the N. W. P.*

To the MEDICAL BOARD,

*Calcutta.*

*Dated Head Quarters, the 23rd October*, 1850.

*Genl. Dept. N. W. P.*

Gentlemen,

I am desired to acknowledge the receipt of your letter, dated September 5th, 1850, forwarding a report from Superintending Surgeon Renny, C. B., on the Mahamurree disease in Gurhwal.

2. The Lieutenant Governor concurs with your Board in considering Dr. Renny's proceedings on this occasion to evince great zeal and intelligence, and to be highly creditable to him as a Member of the Medical Profession, and as a servant of the Government.

3. Your Board are aware that immediately the suggestions of Dr. Renny, contained in his letter of May 14th, were received, sanction was given for the disbursements necessary for carrying them into effect. Happily the disease had subsided before the receipt of the orders, and it was not necessary to destroy any of the infected houses.

4. The disease having now, for the time at least, ceased to make its ravages, it only remains to set on foot such preventive measures as may tend to prevent its recurrence, and also to make preparations in the event of its re-appearance.

5. Dr. Renny, in paragraph 5 of his report, attributes the rise of the disease to the poverty, filth and bad food of the inhabitants of the northern pergunnahs, where the disease generally prevails. Poverty and bad food it may be difficult to remedy, but the removal of filth from their habitations and increased personal cleanliness might be attained by the people themselves, if they could only be induced to put forth their efforts cordially for the purpose. Public officers must always exert themselves, for the attainment of these objects with great caution, lest they occasion a greater degree of distress and vexation than that which they attempt to remove. Persuasion, and not coercion, is the only means they should employ. Still the local influence of a British Officer amongst a rude and

simple people, such as those who inhabit the northern pergunnahs of Gurhwal, is great, and may be efficacious when employed in a kindly spirit, and with an evident solicitude only for the good of the people. It is possible that short printed papers, pointing out the danger of disease, arising from ill-built houses, from accumulations of filth in the vicinity, and from want of personal cleanliness, may contribute to the desired result. Some such measure will be recommended to the local authorities, and any expence attending it will be sanctioned.

6. When the disease actually breaks out, and its prevalence in any locality is satisfactorily established, the promptest measures become necessary. In conformity with a suggestion from the Commissioner of the division, sanction is given in such case for the immediate entertainment of a darogah on rupees 30 per mensem, and a chuprasee on rupees 7 per mensem. It will be the duty of these men to proceed immediately to the spot, and see to the enforcement of the sanitary measures which are recommended, such as burning the bodies of the dead, destroying the less valuable of the infected houses, and preventing access to the more valuable houses, till all fear of contagion has passed away. In all cases of this nature the local officer will exercise a sound discretion in awarding such pecuniary compensation as may be just and requisite to alleviate the distress or make good the losses of the poorer class of sufferers. Monthly bills for all such expences must be sent in by the Commissioner for the sanction of Government during the continuance of the disease.

7. Dr. Renny's suggestion, that any available medical men should be immediately despatched to the spot to watch the disease, and afford such aid as may be possible, is entirely approved. Their travelling expences will be paid, and they will receive the allowances of an Assistant Surgeon at a Civil station during the time that they are so employed, and so long as they remain within the limits of the province. It is probable that the employment of not more than one Officer at a time on this duty will be necessary, unless the Superintending Surgeon finds that the services of more than one person peculiarly qualified for the duty are available, and can advantageously be thus put in requisition.

8. Immediately that the prevalence of the disease is ascertained with certainty, the Commissioner of Kumaon will address himself direct to the Superintending Surgeon, inform-

ing him of the fact and requiring the services of a Medical Officer for the purpose. The Superintending Surgeon will act upon this requisition according to the usages of the department, and will apprize the Commissioner of the measures he has adopted.

9. It is of some importance that in a case of this sort, which is liable at any time to arise, the necessary measures be taken beforehand to ensure the promptest action on the occurrence of the emergency. On this account, and while recent events are fresh in the recollection of all concerned, it would be well that instructions be drafted for the guidance both of the darogah, who will be deputed by the Civil Authority, and of the Medical Officer, who will act under the orders of the Superintending Surgeon. These had better be drafted now by the Commissioner and Superintending Surgeon in concert and lodged in their respective offices against the hour of need. Copies of them should also be furnished to the Government.

10. It occurs to the Lieutenant Governor to observe that the attention of the Sub-Assistant Surgeons at the Dispensary of Almorah, and at that which will shortly be established at Sreenuggur, may be well directed to this subject. Living near the seat of the disease, and in constant intercourse with the natives of the country, who must be familiar with its features, they will have good opportunities of forming a correct judgment on its characteristics. If the disease should again break forth, one or other of those Officers, if possessed of sufficient skill and enterprize, would have before him a fine field, in which to show his humanity and ardour in his profession. It will be most gratifying to find hereafter that this suggestion is acted upon. Every facility should be afforded by the local Officers, both Civil and Medical, for carrying into effect any purpose of the kind that may be entertained by either of the Sub-Assistant Surgeons.

11. The whole of these papers will be printed in a collection of official documents regarding the provinces of Kumaon and Ghurwal, that is now passing through the press, and 300 copies will be printed in the form of a separate pamphlet, a sufficient number of which will be placed at your Board's disposal.

I have, &c.,

(Signed) J. THORNTON,

*Secy. to the Govt., N. W. P.*

HEAD QUARTERS:
*The 23rd October*, 1850.

# GLOSSARY

OF TERMS IN USE AMONG THE

# HILL VILLAGE COMMUNITIES.

## PART I.

### THINGS AND PERSONS CONNECTED WITH THE TENURE OF LAND.

*Thât.*—Property in the soil, derived through Royal grant, immemorial possession, or purchase.

*Thâtwân.*—Proprietor of the soil.

*Rôt.*—Grant of land on the field of battle for Military exploits.

*Murôt.*—Ditto ditto to the heir of one killed in battle.

*Hissa.*—Co-parcenary share of a proprietor.

*Bánt*, *Uns.* } Ditto ditto.

*Hissadar.*—Co-parcenary proprietor.

*Buntoee*, *Unsoee.* } Ditto ditto.

*Bhai-bánt.*—Hereditary family share, only occasionally applied to the whole co-parcenary tenure of a village.

*Bhaia-chara* —A term borrowed from the plains, denoting the co-parcenary tenure when combined with actual division of lands among the co-parceners.

*Zemindar.*—Generic term for *all* agriculturists except Brahmins on the one hand, and Doms (outcastes) on the other.

*Huq Zemindaree*, *Malikana.* } Terms recently introduced from the plains to express Hissadarree dues, and more commonly dues payable to a single proprietor.

*Seer.*—Land kept by a proprietor in his own hands.

*Nij-Jote.*—Ditto ditto.

*Pál.*—Crown lands kept by the Royal family in their own hands.

*Barhee.*—Garden lands belonging to the Government.

*Ráth.*—Separate nominal division of a co-parcenary proprietary community, —a clan.

*Mouzah.*—Nominal revenue term for a village.

*Mouzah Uslee.*—The chief village named in the Pudhan's pottah.

*Mouzah Dakhlee.*—All the villages, great or small, and all the separate lands with or without hamlets, which are included in the same revenue engagement with any *Uslee* village.

*Lugya.*—Same as Dakl lee.

*Thoke*, *Dhurra* or *Thurra.* } Separate divisions in a mouzah.

*Dhurra.*—Also a hill faction or party.

*Unbunta.*—The undivided common land of a village, also undivided Hissadarree land.

*Sunjayuthee.*—Ditto ditto.

*Mao*, *Mowása.* } A family; the several families composing a village community.

*Girvee.*—Mortgage, pledge.

*Mât*, *Bunduk*, *Utta.* } Ditto ditto.

*Dhál Bhól.*—Foreclosure of a mortgage, also absolute purchase.

*Khureed-dar.*—Purchaser of land in a village.

*Jageer.*—Grant of land, revenue free.

*Maafee.*—Do. do., (less commonly used).

*Ukra.*—Free of revenue burden.

*Sukra.*—Burdened with revenue payments.

*Khálsa.*—Ditto ditto (uncommon).

*Goont.*—Grant of land, revenue free for a religious endowment.

*Dutt.*—Any gift of land.

*Suda-burt.*—Grant of lands for the purpose of providing for the perpetual distribution of food at certain fixed spots to pilgrims.

*Bum-dutt.*—Gift upon gift of land.

*Nankar.*—Rent-free tenure of land on account of service to Government in lieu of pay.

*Brita.*—Tenure of land held by Brahmins.

*Koos Brita.*—Absolute gift of land to a Brahmin granted at an eclipse or other sacred occasion.

*Mana-Chawul.*—Rent-free grant for life.

*Sunkulp.*—Gift of land, &c., by vow.

*Ukureea Mafeedar.*—Holder of revenue free land.

*Bairukh.*—Taking possession of land formally (from Bairukh, a kind of Jhendee or landmark-flag.)

*Kubza*, *Dukhul.* } Possession of land.

*Lágut*, *Láy.* } Expences incurred in cultivation, building, irrigation, *law suits*, &c.

*Toot.*—Loss to landholder in payment of revenue.

*Goonjaish.*—Profit to ditto in ditto.

*Pudhan.*—The person holding the revenue engagement (pottah) with Government either by his own right, or by election of the Hissadars. In communities divided into clans, each division elects its own Pudhan as manager and collector of revenue, and all the Pudhans are both jointly and separately responsible for the whole revenue, except where an authoritative separation of responsibilities has taken place.

*Malgoozar.*—Do. do. (less common).

*Huq Pudhanee.*—Remuneration of the Pudhan in land and dues, or either.

*Pottah Pudancharee*, *Do. Malgoozaree.* } The deed from the Government District Officer held by the Pudhan, setting forth his liabilities, duties, dues, &c.

*Pudhan-Khanyee.*—Ditto ditto.

*Huq Pudhancharee.*—Ditto ditto also applied to the office of Pudhan.

*Jetoonda.*—(Right of the elder),—term applied to the land held by a Pudhan whose office has been always hereditary in his family.

*Ghur Pudhan.*—Privately appointed manager of a zemindaree village, or village with absentee proprietors.

*Thokdar.*—Ministerial Officer, generally hereditary, appointed or confirmed by the ruling power, to manage police and purveyance duties in, and to exercise a general superintendence over, a varying number of villages, of one or more of which the said Thokdar is also ordinarily, but not necessarily, a Pudhan.

*Thokdaree Pottah.*—The official title deed held by the Thokdar from Government, giving the names of his villages, and pointing out his duties and his fees for the same. The pottah requires a regular authoritative renewal at each vacancy, (by the *Commissioner*) and occasionally the voice of the people is heard for or against particular nominations and successions.

*Huq Thokdaree*, *Dustoor Thokdaree.* } The fees legally payable to the Thokdar by the several Pudhans of his villages.

*Seeana*, *Kumeen*, *Boorha.* } Unofficial names applied to the Thokdars in different parts of the Province, who are men of old and high families.

*Huq* or *Dustoor*, *Seeancharee*, *Kumeencharee*, *Booracharee.* } Miscellaneous dues, resembling, but generally in excess of, Huq Thokdaree, and levied by the abovenamed characters according to old customs and mutual consent.

*Pergunnah.*—Principal nominal division of a country.

*Puttee.*—Nominal division of a Pergunnah.

*Putwarree.*—A modern term for the Government Ministerial Officer in charge of one or more Puttees, and paid by a petty monthly salary.

*Dufturee.*—Record Officer, Registrar of ancient rights, corresponding to Canoongoe.

*Canoongoe*—Ditto ditto, a modern term. The present Canoongoes are paid by fixed monthly salaries consequent on the resumption of their Nankar lands.

*Neyee.*—Any Government servant.

*Ney.*—Dues for service.

*Khaëkur.*—Old occupant non-proprietary cultivator, not unfrequently the descendant of a Thâtwân who was superseded by a new grantee, (name derived from खाना to eat, and कर the royal revenue, that is, he may enjoy the land so long as he pays the revenue).

*Kynee.*—Vassal tenant permanently attached to the soil, and paying rent to the heir of the proprietor who first settled him on the lands and established him as "adscriptus glebœ." The Kynee differs from the Khaëkur in his greater dependency on individuals, and generally his greater burden in rent. This class of tenants is fast being merged into that of Khaëkurs.

*Sirthee.*—Rent paid by a tenant to the person whose land he cultivates or occupies.—Sirthee is generally in cash and of small amount.

*Sirthan, (Asamee).* } Cultivator paying sirthee per beesee or per nalee.

*Paekast, (Asamee).* } A non-proprietary cultivator from another village, paying according to the terms agreed upon between himself and the owners of the land. Undivided village lands under the management of the Pudhan, and separated lands distant from the homestead, are generally let out to Paëkasht asamees.

*Hâlee, Huleea.* } Ploughman, generally a Dom, formerly a *slave* together with all the members of his family, now a *servant*, but often hereditary and remunerated by food, clothing and land rather than by wages.

*Khundela.*—The rent-free land given by their masters to *Hâlees*. *Hence* also, the name of the latter "Khundelooa Asamee."

*Kotâl. Puhree, Meldar.* } Message-taker, and "man of all work" for the Thokdar and Pudhan; also, where required, village Chowkeedar or watchman, generally remunerated by one nalee of grain at each harvest from each Mao or family of the village. Puhrees are rarely found out of pergunnah Palee, and there they are peculiar to the larger Thokdaree circles.

*Sookhum Bashee.*—Any householder in a village who "lives at ease" and has nothing to do with the village, lands and liabilities, &c.

*Rukum.*—Revenue or rent.

*Koot.*—Rent paid *in kind* ¼ or ⅓rd according to custom and the quality of the soil ("Adheea," "Tekoot," &c).

*Jugoolee.*—Another name for sirthee, or petty money rent.

*Bhai-kur, Khaja.* } Petty rent in kind paid to the land owner; often almost a *pepper-corn* rent.

*Sâg Pât, Wulug, Teeka Bhet.* } Ordinary and extraordinary dues paid to Thokdars, Pudhans and Hissadars by Khaëkurs and other tenants of land, corresponding to Nuzzurana in the plains. They consist chiefly of ghee, vegetables and the like.

*Beth.*—Occasional personal service in the fields and buildings of a superior. *Beth* ploughings for the Thokdars and Pudhan's own lands are common.

*Kheenee, Khepnee.* } Personal attendance by Kynees on a superior in his journies and ceremonies, involving cooly labor, and unremunerated save by food, now voluntary, but far from unusual.

*Gheeo-kur.*—Pasturage tax formerly an item in the Government demand. Now the petty present of milk, duhee and one pie per head of cattle, paid to village Hissadars by parties who pasture their herds within the boundaries of others.

*Churaeë.*—Government pasturage tax still collected in the Bhabur or Terrai pergunnahs.

*Burdaish. (Burdasht). Cooly-Goodam.* } The furnishing of porters and the purveyance of food to Government Officers, Troops, and European travellers in general, remunerated by wages and prices.

*Gaonsaree-dâk, Ditto Chulan.* } The passing on of letters, goods, prisoners, treasure, &c. village by village without remuneration and on the responsibility of the Pudhan of each village.

# PART II.

## SELECTION OF TERMS CONNECTED WITH LOCALITY, IMPLEMENTS, QUANTITY, &c.

*Toke*, *Sar*, *Tanna*. } Separate division of land in a village, each bearing a separate name.

*Seera*.—Irrigated land.

*Tulaon*, *Koolon*. } Ditto ditto.

*Ocperaon*.—Upland unirrigated land.

*Teiloo*.—Sunny land,

*Selo* —Shady land.

*Mulla*.—Great, upper, large,

*Tulla*.—Little, lower, small.

*Khet*.—A field.

*Gurhoo*.—A field in a hollow.

*Poongra*, *Poochra*, *Kanlo*, *Hango*, *Gurra*, &c. &c. } Names for fields according to situation, shape, &c.

*Pugar*, *Beerh or Beerha*, *Paira*. } Terrace wall of fields.

*Koollo*.—Water-course in hills.

*Gool*.—Water-course in the Bhabur.

*Bán*.—Dam of water-course.

*Gurhee*, *Gurh*. } Fort, fortress.

*Ijjur*.—Poor forest land periodically cleared for tillage.

*Mán* —Ditto ditto.

*Keel*.—Ditto ditto, in Gurhwal.

*Banja*,—Fallow.

*Seemar*, *Ganja*, *Seem*. } Swampy land.

*Jhadda*.—A river swamp in the Bhabur.

*Gao-chur*.—Land left waste for pasturage.

*Thoola*.—Big, great.

*Nano*.—Small, little.

*Goth*, *Khurruk*, *Gwar*. } Cattle shed.

*Khor*.—Sheep-pen on the mountains.

*Bun*.—Forest wood, grassy country.

*Jungul*.—Waste, thorny, low wood.

*Gón*, *Góenta*. } Cattle path.

*Raj-rasta*.—High road.

*Bata*.—Path.

*Gullee*.—Narrow path, pass.

*Dhoora*.—Very high mountain range.

*Danda*.—High mountain ridge.

*Dhar*.—Ridge or spur.

*Purbut*, *Puhur*. } Any mountain.

*Dhak*.—Flat open crest of a mountain.

*Kanta*.—Peak of a mountain.

*Kote*, *Boonga*. } Crest of a hill (fort-like).

*Teeba* or *Teepa*.—Peak.

*Tibree* or *Tipree*.—Small peak.

*Pakha*.—Side of a hill.

*Rela*.—Cultivated side of a hill.

*Kurkura*.—Bare side of a hill.

*Bhel*.—A precipice.

*Kuphur*.—Steep and rocky side of a hill.

*Kurala*.—Slopy side of a hill ending in a precipice.

*Paira*.—Landslip, avalanche.

*Sen* or *Saina*.—A lawn.

*Bagarh*.—Flat land near a river.

*Chor*, *Tuppur*. } Good flat land.

*Ootar*, *Wularoo*. } Descent.

*Churai*, *Wukaloo*. } Ascent.

*Khan*, *Khannee*. } A mine, ravine.

*Cheena*.—A cleft, a pass.

*Garh*.—A river glen.

*Gudera*, *Gudna*. } A glen, ravine with water.

*Roula*.—A torrent path.

*Rao*.—A torrent path in Bhabur.

*Kudd*, *Gair*, } Deep glen, steep side of a hill.

*Kol*.—A ravine.

*Chirra*.—Water fall.

*Chincharra*.—Water fall in Gurhwal.

*Gaon*.—A village.

*Doomora*, *Doomtola*. } Part of a village inhabited by Doms and low castes.

*Khola*, *Bakul*. } Separate rows of houses in a village.

*Punchukkee*, *Ghut*. } Water Mill.

*Tal*, *Talao*. } A lake, also a dried up lake or pond.

*Pokhur*.—A pond, reservoir.

*Noula* —A covered well, covered spring.

*Baolee*.—Ditto ditto, (less common).

*Dharra.*—A spout at a spring.
*Jhar.*—A spring.
*Ghat.*—A river ford.
*Ghattee.*—A mountain pass.
*Khál.*—Ditto.
*Puthur.*—A rock, stone.
*Doonga.*—A stone.
*Putalee.*—A slate.
*Dasee.*—Quartz, white rock.
*Bisaona.*—Resting distance for a loaded cooly; about half a mile.
*Hull.*—A plough.
*Nesora.*—Plough-share.
*Kotla.*—A weeding instrument.
*Kodal.*—Larger ditto.
*Datola.*—A sickle.
*Duneeala.*—A barrow.
*Jhole.*—Ditto.
*Jote.*—Yoke (rope).
*Jooa.*—Yoke (wood).
*Rumpta*, *Koolharee.*—An axe.
*Okul.*—Hole in the threshing floor for husking grain.
*Okreeala.*—Ditto ditto, in Gurhwal.
*Moosul*, *Gujiala.*—Pestle or pole for pounding and husking grain in above.
*Kulla*, *Kulleean.*—Threshing floor.
*Buld.*—Ploughing cattle.
*Ghur*, *Howelee.*—House.
*Barha.*—Garden plot close on the house.
*Phoolaee.*—Flower garden.
*Chak*, *Chaja.*—Upper veranda.
*Goth.*—Lower room generally devoted to cattle.
*Goth-mal*,—Lower veranda.
*Tewarree.*—Front room, open hall of reception.
*Kotree*, *Khund.*—A room.
*Pakha.*—Roof.
*Choke*, *Angun.*—Court or terrace in front of a house.
*Utangun*, *Putangun.*—Yards close to the house.
*Nalee, in Kumaon*, *Patha, in Gurhwal.*—Measure of land, derived from a measure of a capacity equal to about 2 seers of grain; or quantity which is supposed capable of sowing the land (*vide* Reports *in loco*).
*Beesee.*—20 nalees or pathas.
*Jhoola.*—A number of beesees varying from 6 to 18 according to the tenure of the grant of land, &c., (*vide* Traill's Report *in loco*).
*As.*—Similar to a beesee.
*Allee.*—A number of Beesees less than Jhoola, (*vide* Traill's Report).
*Belka.*—Similar to a nalee or patha.
*Peraiee.*—Sixteen nalees. This term represents both quantity of land, and actual produce.
*Doon.*—Ditto ditto in Gurhwal.
*Mana.*—Fourth part of a nalee.
*Reendee.*—Similar to a beesee.
*Masa*, *Pysa*, *Doganee*, &c., &c.—Proportional parts of grain produce.
*Gula*, *Un*, *Unaj*, *Oopaj*, *Paidawaree.*—Grain produce.

*FINIS.*

# TABLE OF ERRATA.

Page 3, 3 lines from bottom, for "Suab," read "Suwak."
Idem, idem, for "Gourmati," read "Gaomutti."
„ 4, 22 lines from top, for "Byani," read "Byans."
„ 16, 16 lines from ditto, for "from the middle of September," read "from the middle of June to the middle of September."
„ 17, 28 lines from ditto, for "Dhampur," read "Dhunpoor."
„ 174, 4 lines from bottom, for "1219 Fuslee," read "1210 Fuslee."
„ 215, 20 and 30 lines from top, for "Paharces," read "Puhrees."
„ 220, 17 lines from ditto, for "Thullut," read "Jhullut."
„ 224, 10 lines from ditto, for "as Kote," read "Askote," and for "Puldakote," read "Phuldakote."
„ 269, 7 lines from ditto, for "Nundidevi," read "Nundadervi."
„ 283, 21 lines from ditto, for "Bhai Bhut," read "Bhaibant."
„ 286, 25 lines from ditto, for "Looa Mundee," read "Sooa Mundee."
„ 286, 36 lines from ditto, for "Goorkhlee," read "Goorkhalee."
„ 299, 4 lines from bottom, for "Sunnee," read "Sunny."
„ 303, 12 lines from top (and passim throughout the work), for "Ramgurh," read "Ramgarh."
„ 303, 16 lines from ditto, for "Khyma," read "Khyrna."
„ 301, 11 lines from ditto, for "Khetsanee," read "Khutsaree."
„ 306, 28 lines from ditto, for "Baro-ke Rao," read "Burokheree."
„ 311, 6 lines from ditto, and also passim, for "Reetagurh," read "Reetagarh."
„ 317, 15 lines from ditto, for "Kat-ke Rao" read "Kat ke Nao."
„ 317, 28 lines from ditto, for "Joonia Garh," read "Joonia Gurh."
„ 344, head line, for "Crucoferæ," read "Cruciferæ."
„ 345 and 346, omit the heading, "Dolichos Lignosus, (Roxburgh)."
„ 366, 3 lines from the top, for "branches of ore," read "bunches of ores."
„ 366, 21 lines from ditto, for "leads," read "levels."
„ 368, 9 lines from the bottom, for "Kumpryag" read "Kurnpryag."
„ 368, 9 lines from ditto, for "Pidur," read "Pindur."
„ 368, 7 lines from ditto, for "Buniote," read "Bumote."
„ 368, in the note at the bottom of the page, for "phutiart," read "phullût." for "comlossa," read "Camellosa."
„ 385 to page 390 passim, for "Dhanpore," read "Dhunpoor."